The Journal of the American Medical Profession

MEDICAL TIMES



Machanotherapy of Impatence
Artificial Insemination
After Effects of Impotence
Obesity
Socialization in Britain
From the Secretary of Defense

Medical Book News

Contemporary Progress

Editorials

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Vol. 77

May 1949

No. 5



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Presidon, a new quick-acting.
mild sedative-hypnotic for insomnia
and nervous tension, is a pyridine
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or sleep is obtained without likelihood
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- Rakoff, A. E. et al: J. Clin. Endocrinol. 7:688 (Oct.) 1947.
- Finkler, B. S., and Becker, S.: Am. J. Obst. & Gynec. \$3:513 (Mar.) 1947.

Dosage: Menopausal Syndrome— Tablets 0.1 to 0.5 mg, daily for mild to moderately severe, or 0.5 to 1.5 mg, daily for severe or artificially induced. Suspension 2.5 to 5.0 mg, (½ to 1 cc.) once or twice weekly.

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MEDICAL TIMES, MAY, 1949



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Methionine is being used widely for protection against impaired liver function. "In the treatment of toxemia and hemolytic disease of the newborn, it is a valuable adjunct to other proved types of therapy. The hepatorenal syndrome can best be treated with the combined use of plasma, whole blood, and methionine.

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Philpott, N. W., Hendelman, M., and Primrose, T. Methionine in Obstetrics, Am. Jr. Obst. & Gynec, 97:125-142 Jan. 1949

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dl-methionine with **B-Complex** Vitamins

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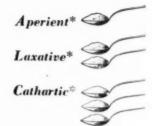
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protection

for

the

unborn

child

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References: 1. Karnaky, K. J.: Original gynecological and obstetrical research—sterility, endocrine and vaginal operations, M. Rec. & Ann. 35.851, 1941. 2. Smith, O. W.; Smith, G. van S., and Hurwitz, D.: Increased excretion of pregnancediol in pregnancy from diethylstilestrol with special reference to the prevention of late pregnancy accidents, Am. J. Obst. & Gynec. 31.411, 1946. 3. Meaker. S. R.: A working classification of the causes of abortion. J. A. M.A. 125.880, 1943. 4. Rosenblum, G. and Melinkoff, E.: Preservation of the hirothoned pregnancy with particular references to the use of dethylstilbestrol, West. J. Surg. Obst. & Gynec. 35.397, 1947.



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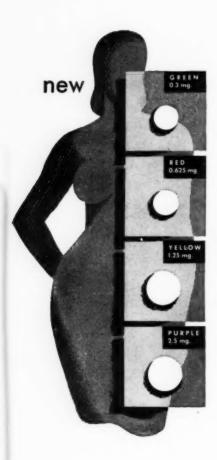
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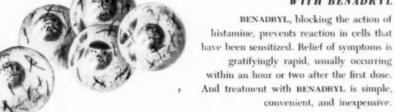
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LETTERS

TO THE EDITOR

This department is offered as an Open Forum for the discussion of topical medical issues. All letters must be signed. However, to protect the identity of writers, who are invited to comment on controversial subjects, names will be omitted when requested.

NATIONAL HEALTH INSURANCE

"... Personally, as far as I am concerned I do not care what the federal government does about health insurance. However, this is like the camel getting his head under the tent and when this is changed into nationalized medicine, the poor people will be the ones who suffer. The best example is the Veterans Administration's care of veterans-mostly no sympathy, no interest and on the part of the doctors just a day's work and no more. I have seen nationalization of medicine working in Austria, Germany, France and England and find that physicians put more time on paper work than on the care of the patients. National Health Insurance is just another bureaucratic method of getting more power and more control.

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"... I believe in nationalization and socialization of our economy. But I believe that medical services should be the last things to be nationalized.

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M.D., New York

—Continued on page 40a

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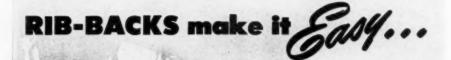
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1. Donegan, J. M. and Thomas, W. A.: Amer. J. Ophthalmology, 31: 671-78 (June) 1948.

2. Lockwood, B. C.: J. Mich. St. M. Soc., 46: 550-54 (May) 1947.

3. Herrmann, G. R.: Synopsis of Diseases of the Heart and Arteries, St. Louis, The C. V. Mosby Co., 1944, p. 167.

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INDICATIONS: In prophylaxis and therapy of nutritional, hypochromic and secondary anemias; as adjunctive therapy in macrocytic anemias; and in avitaminoses of the B complex and ascorbic acid often accompanying anemias. Laurium is not intended for the treatment of pernicious anemia.

ACTIVE CONSTITUENTS: Each capsule contains: 280 mg. ferrous gluconate, supplying over three times the MDR for iron; liver concentrate 200 mg., derived from 4 Gm. fresh mammalian liver; 1 mg. folic acid; 2 mg. thiamine hydrochloride, twice the MDR; 1mg. riboflavin, one-half the MDR; 10 mg. niacinamide; and 15 mg. ascorbic acid, one-half the MDR.

Dosage: Administration with meals suggested. Dietary supplement—one or two capsules daily. Hypochromic anemia—one or two capsules three times daily or as physician directs.

How SUPPLIED: In bottles of 100 capsules.

—Continued on page 32a MEDICAL TIMES, MAY, 1949

Sodestrate

CONJUGATED NATURAL ESTROGENS EQUINE WATER SOLUBLE

Effective Oral Therapy with Minimal Dosage

Contributes definite constitutional effects, directly reflected in the radiant physical and mental health of the normal, hormonally balanced mature woman.

ADVANTAGES

- The conjugated estrogens in SODESTRATE are derived exclusively from natural sources (pregnant mares' urine).
- The estrogens are carefully preserved in the water soluble form in which they are excreted by the kidney.
- Unlike free natural estrogens which are largely inactivated and poorly utilized when given by mouth, SODESTRATE is rapidly and completely absorbed from the gastro-intestinal tract and is not inactivated by the liver.
- 4 Highly potent yet essentially safe and well tolerated.
- Tonic properties of SODESTRATE impart a feeling of well being not equalled by the effect of synthetic estrogens.

For clinical applications and suggested dosages, see literature available on request.

SODESTRATE is available as 1.25 mg. tablets, coated orange.





Physicians acclaim the new Koromex ell inclusive contraceptive unit. This fine container is ivery-colored plastic, permanent, dust-proof, attractive for home use and ideal for traveling. It catteries two regular size tubes of Koromex Jelly which Diaphragm stored in the ingeniously constructed over compartment... and a Koromex Cover compartment... and a Koromex Measured Dose Plunger Applicator that rests securely en

Where pregnancy is contra-indicated, recommend the complete Koromex Jelly Refilable
Unit to your discriminating women patients.
for those of your patients who require a slightly
preparation a similar companion package conKoromex Jelly is also available.

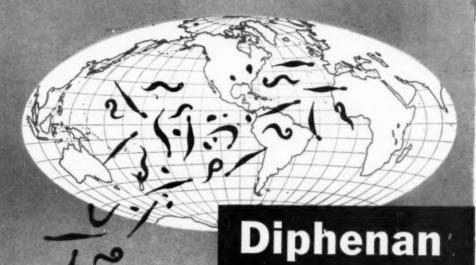
ACTIVE INCREDITATS ROBUS ACID 2 DW OREQUINOTIVE RENJOATE GOTW AND RESIDENCE ACETATE CODY. IN SUITABLE SELECT OR CREAM BASES.

MERLE L. YOUNGS . PRESIDENT

KOROMEX

"A CHOICE OF PHYSICIANS"

for "This wormy world"



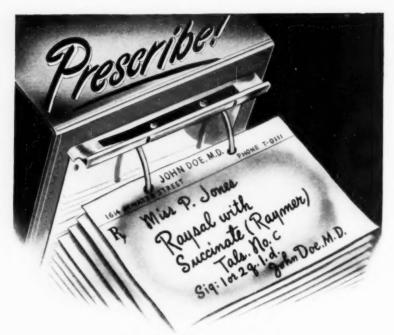
209 MILLION persons act as hosts to Oxyuris (Enterobius) vermicularis according to Stoll's fascinating article "This Wormy World". This undesirable tenancy can be terminated with the aid of 'Tabloid' brand Diphenan, by mouth, for Diphenan kills the worms by direct action on the parasite.

Since these worms make no distinction as to age or social status—Diphenan's palatability, safety and economy are important considerations. One or two products t.i.d. for adults; % of a product t.i.d. for children up to 3; % t.i.d. for children up to 10, and 1 t.i.d. for older children. "Tabloid' brand Diphenan is supplied as wintergreen-flavored chewing wafers of 0.5 grams each in bottles of 20.



BURROUGHS WELLCOME & CO. (U.S.A.) INC., TUCKAHOE 7, N.Y.

1. Stoll, Norman R.: Jrl. of Parasitology 39:1 No. 1 (Feb.) 1947.



for the Treatment of

ARTHRITIS and RHEUMATISM

RAYSAL WITH SUCCINATE . . . The ethical salicylate-succinate formula . . . Employs three principal ingredients—salicylate, iodine, and succinate . . . designed to combine the almost specific antiarthritic and antirheumatic action of the salicylates, the stimulating and nutritionally corrective effects of iodine and the salicylate detoxifying action of succinic acid. An ideal companion medication for other therapeutic measures employed in arthritis and rheumatism. RAYSAL WITH SUCCINATE will enhance the efficiency of RAYFORMOSIL . . a safe and effective combination for use in your next case. Sample and literature will be sent upon request.

The Deloxified Salicylate Medicament ENTERIC COATED TABLETS (SALOL)

Available for office use and at your pharmacy on prescription

RAYMER

PHARMACAL COMPANY • PHILADELPHIA 34, PA.
PHARMACEUTICAL MANUFACTURERS

Over a Quarter Century Serving Physicians

description

Smooth, refreshing, chocolate-mint-flavored suspension of nontoxic SULFASUXIDINE® succinylsulfathiazole (95% retained in bowel), 10%; Pectin, 1%; and Kaolin, 10%. Particularly well accepted by infants and children. Toxicity is negligible.

Nonspecific diarrhea, especially the "summer complaint" of infants. Consolidates fluid stools, soothes inflammation, checks enteric bacteria, detoxifies products of enteric putrefaction.



cremosuxidine.

Sulfasuxidine® suspension with pectin and kaolin



Infants: 2-3 teaspoonfuls, 4 times daily. Children: 1-2 tablespoonfuls, 4 times daily. Adults: 2-3 tablespoonfuls, 4 times daily. Supplied in 16 fl. oz. Spasavers bottles. Sharp & Dohme, Philadelphia 1, Pa.



EFFECTIVE PRESCRIPTIONS

IN

- Pneumonia
- Empyema
- Septicemia
- Meningitis
- Otitis Media
- Mastoiditis
- Sinusitis

R

Penicillin 1,000,000 units

SULFADIAZINE WITH SODIUM LACTATE

MRT* g.s. fl. ziii (90 cc.)

Sig.
One tablespoonful q. 4 h.
for 2 doses then 3† q. 4 h.
Shake well

Penicillin 1,000,000 units

SULFA-LACTATE CO.

q.s.fl. ziii (90 cc.)
(Sulfadiazine, Sulfamerazine
and Sulfamethazine in
equal proportions)
Sig. One tablespoonful q. 4 h.
for 2 doses then zi q. 4 h.

A one dram dose in either of the foregoing Rx's provides over 55,000 units of penicillin, 0.5 grams (7.7 grains) sulfas, plus 1.5 grams (22 grains) sodium lactate.

*U. S. Patent No. 2,460,437.

no coined names . . . specify

Shake well

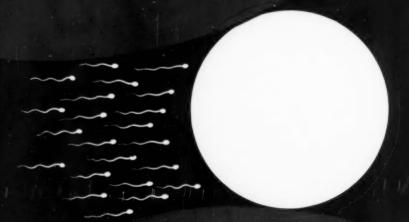


literature and samples on request

original contributions by MARVIN R. THOMPSON, INC.
STAMFORD, CONNECTICUT
SERVICE TO MEDICINE



Selectivity



Petently specialised, yet gentle to the sensitive veginal mucose, the telective action of Ortho-Gynol and Ortho-Gynol and sofe applications. The physician appreciates the safety of this selectivity; the patient appreciates the aesthetic qualities of these Ortho proparations. These elements combine to win the patient's

ortho-gynol

Ortho whenever indicated—wherever prescribed

Ortho-Creme

Convilate 1989 Ortho Phasis, Corp., Raylian, N. H.

MANUFACTURER: Raymer Pharmacal Co., Jasper and Willard Sts., Phila. 34, Pa. INDICATIONS: Provides the analgesic, antipyretic, antirheumatic and antiarthritic effects of salicylate ion, with the toxic effects of the latter being counteracted by succinic acid, a normal body constituent which functions as a respiratory catalyst. The inclusion of iodine provides the favorable metabolic effect of that element, especially in older patients. The calcium-sodium phosphate buffer system minimizes irritation and with the enteric-coating provides a product acceptable even to the most delicate gastrointestinal tract. For use in the treatment of various arthritides and rheumatic ailments, especially when therapy is to be continued for prolonged periods.

ACTIVE CONSTITUENTS: Each tablet contains: Raysal (representing 43 per cent salicylic acid and 3 per cent iodine in calcium-sodium phosphate buffer combination), 0.324 Gm. (gr. 5); succinic acid, 0.130 Gm. (gr. 2).

Dosage: Orally, 1 or 2 tablets 4 times daily.

How SUPPLIED: Tablets, enteric-coated pink-Bottles of 100, 500, and 1000.

Gestavite 5-49

MANUFACTURER: Pitman-Moore Co., Indianapolis, Ind.

INDICATIONS: To supply additional vitamins and minerals required during pregnancy and lactation. Each tablet contains the minimum daily requirement of Vitamin D, approximately ½ that of ascorbic acid, and sufficient vitamin B for normal human nutrition, and significant amounts of iron, calcium and phosphorus.

ACTIVE CONSTITUENTS: Each tablet contains: Vitamin D, 200 U. S. P. units; ascorbic acid, 25 mg.; thiamine hydrochloride, 3 mg.; ferrous sulfate, 100 mg. (1½ grs.); calcium phosphate dibasic U. S. P., 240 mg. (3.75 grs.).

Dosage: One or two tablets, three times per day, depending upon the dietary requirements of the case.

How SUPPLIED: In bottles of 100 and 1000.

Urecholine Chloride

5-49

MANUFACTURER: Merck and Co., Inc., Rahway, N. J.

INDICATIONS: For the prevention or alleviation of distressing postoperative gas pains and abdominal distention due to loss of smooth muscle tone.

ACTIVE CONSTITUENT: Urethane of β-methylcholine chloride.

Dosage: Oral administration: The usual oral dose of urecholine chloride is 10 to 30 mg, three times daily. In most cases a prompt response follows the administration of only 10 to 15 mg. The effect of the drug is apparent within 30 minutes and lasts about one hour. Subcutaneous administration: The usual subcutaneous dose of urecholine chloride is 5 to 10 mg, three times daily. While results are more dependable following subcutaneous injection than after oral administration, side effects are more common. Since it is a potent drug, it should be used cautiously and in accordance with the recommendations of the manufacturer.

How Supplied: In bottles of 100-5 mg. tablets, for oral use and in cartons of 6-1 cc. ampuls, containing a solution suitable for subcutaneous injection.



... caused by POISON OAK and POISON IVY

Prevent - with Poisonok®or
Poisonivi®-Cutter. Preferred for
pre-seasonal desensitization because it
keeps the average person symptom-free for
3 to 8 months. Administered orally, it
permits adjustment of drop dosage for
individual needs and can be used at home.

Treat— with Toxok®or
Toxivi*Cutter. This injectable product
dramatically shortens active cases, stops
spreading and reduces inflammation.
Where injections are impracticable the
oral product is also a specific for treatment.

Ointment or Lotion. Contains three anesthetic agents for fast, intermediate and prolonged relief of itching. The non-greasy base appears to have a definite drying action on the oozing type of rash. Bacteriostatic action of ingredients reduces hazards of secondary infections.

FOR FILE CARDS
giving dosage information, etc., write to Cutter
Laboratories, Berkeley, California, Dept. E-51

*Trademark

Poisonok or Poisonivi - Toxok or Toxivi
 Dermesthetic Ointment or Dermesthetic Lotion

CUTTER

The New Oral Treatment for

New Concept

Psoriasis and neurodermatitis are treated systemically in a new therapy developed clinically by Perlman¹.

The medication used is a refined grade of undecylenic acid specifically selected for oral administration. Preliminary reports on clinical usage show definite response in a majority of the cases treated.

Why and how this new form of undecylenic acid works is not yet known. It is an odd-numbered carbon atom unsaturated straight chain fatty acid, and may play an important role in abnormalities in fatty acid metabolism.

Description

The undecylenic acid used by Perlman and others for their cases is now available under the name of Declid Undecylenic Acid Capsules.

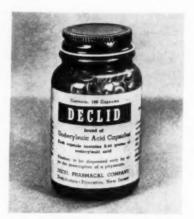
It must be emphasized that all the clinical work reported has exclusively employed only this particular grade of undecylenic acid. Ordinary commercially available undecylenic acid supplied for external uses is not recommended, since its possible effects when taken internally are unknown.

Declid Undecylenic Acid is supplied in soft gelatin capsules, 0.44 g. Uncapsulated, the acid is an oily, water-insoluble liquid with a fatty odor and bitter taste.

Clinical Results

Favorable responses in 25 cases of psoriasis and neurodermatitis are reported by Perlman¹.

In the cases reported so far, these improvements have been noted in varying degree in the different patients: 1. Subsidence of itching. 2. Complete or partial disappearance of lesions. 3. The probable prevention of recurrence by maintenance dosage.



Declid Undecylenic Acid Capsules, 0.44g, each, are supplied in bottles of 100.

In cases of psoriasis associated with arthropathies, Perlman² noted in a preliminary report that arthritic pains diminished or disappeared following oral undecylenic acid treat-

On Prescription Only at Drug Stores

DECLID UNDE

Psoriasis and Neurodermatitis

ment. He has found relief and improvement from symptoms in 6 cases of arthritis and bursitis not complicated by psoriasis and urges further research by others.

Tolerability

Declid Undecylenic Acid has been administered in large daily dosages over long periods without severe side reactions or toxic symptoms.

After taking Undecylenic Acid, some patients complain of a bitter taste in the mouth, mild nausea, belching or dyspepsia. These are relieved by antacids. Increased bowel activity is sometimes noted. When justified, reduced dosage or temporary cessation of treatment is advised. These side effects, in most cases, do not reappear when full dosage is resumed.

Dosage

Declid Undecylenic Acid is not a fast-acting drug. Quick response should not be expected. The optimum dosage has not been determined. The physician must evaluate each case and adjust the dosage to the response.

The capsules should be taken between meals — not on a full stomach. Suggested dosage schedule. First week: Four Declid Capsules 3 times daily; Second week: 6 Capsules 3 times daily; After second week: 8 to 10 Capsules 3 times daily if needed and continued for several months or until complete disappearance of lesions. Tolerability is enhanced by taking the capsules with a carbonated beverage, water or ginger ale.

If high dosages are taken over long periods, frequent urinalyses and blood counts are recommended.

Adjunctive Therapy

In some cases the response to Declid Undecylenic Acid has been accelerated by external use of a medicated ointment, such as ammoniated mercury \$% and salicylic acid \$3% in anhydrous lanolin-petrolatum base.

Contraindications

Oral therapy with Declid Undecylenic Acid is new, and much is still unknown about its effect on metabolism. Therefore, it should be administered with caution, and not to debilitated, diabetic or hypertensive patients, or those with coronary or gall bladder symptoms.

REFERENCES

- 1. Perlman, H. H.: Undecylenic Acid Given Orally in Psoriasis and Neurodermatitis, J.A.M.A. 139:444 (Feb. 12) 1949.
- Perlman, H. H.: Undecylenic Acid by Mouth in the Treatment of Arthritis and Bursitis, Urol. & Cutan. Rev. (Feb.) 1949, P. 103.

Caution

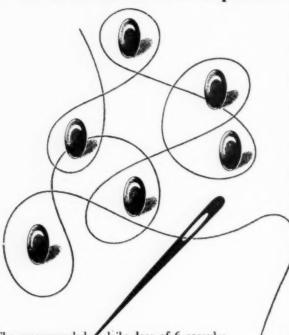
Declid Undecylenic Acid is to be dispensed only by or on the prescription of a physician. Literature available on request.

DECYL PHARMACAL CO. • DISTRIBUTORS • PRINCETON, N. J.

CYLENIC ACID

Hemosules WARNER

A New Hematinic Preparation...



to the
Successful
Treatment
of
Hypochromic
Anemias

Tailored

The recommended daily dose of 6 capsules

For Prophylaxis and/or Maintenance

in hypochromic anemias:

three times a day after meals.

two (2) HEMOSULES*

For Therapy

in conditions predisposing toward anemic states, i.e., pregnancy, fever, respiratory disorders, infectious diseases, nutritional disorders, etc.: one to three (1 to 3) HEMOSULES* daily, or more, as prescribed by the physician.

HEMOSULES* 'Warner,' hematinic capsules, are available in bottles of 96 and 250.

William R. Warner & Co., Inc.

New York . St. Louis . Los Angeles

Ascorbic acid (vitamin C) . . . 90.0 mg.

how to get rid of

undesirable tenants

in vaginitis and Corvicitis

hardy indeed is the trichomonal or other infective organism which can survive the vaginal environment created by ...

westhiazo single dose vaginal

disposable applicators

> Safe, dainty, easy-to-use westhiazole vaginal rapidly produces ...

- a vaginal acidity untenable to most pathogenic organisms.
- speedy control of discharge, itching, foul odor, and other distress.
- more rapid recovery by elimination of secondary as well as primary infection; recovery in vaginitis averages 2 to 7 weeks; in cervicitis 3 weeks.

samples? literature? please write to WESTWOOD PHARMACEUTICALS, Dept. MT 468 Dewitt St., Buffalo 13, N.Y. division of Foster-Milburn Co.

westhiazole vaginal jelly

conteins 10% SULFATHRAZOLE. 4% UREA, 3% LACTIC ACID. 1% ACETIC ACID in a polyethylene

TITRALAC





copes successfully with gastric hyperacidity because



its efficacy and taste invite the cooperation of your patients.



Pleasant enough to take and chew without water,



One TITRALAC
tablet has
acid-neutralizing power



equivalent to a full eight-ounce glass of fresh milk



Rapid and sustained relief (tablet disintegrates in one minute . . . buffer action lasts an hour or longer)



Each tablet contains 0.15 gm. glycine and 0.35 gm. calcium carbonate

TITRALAC

Supplied in bottles of 100 tablets.

Schenley Laboratories, inc. 350 fifth avenue, new york 1

ERTRON Inucleus

well-rounded regimen in

of a

arthritis

Ertron — electrically activated, heat-vaporized ergosterol, Whittier — occupies a pivotal position around which to fashion the therapeutic regimen of the arthritic patient. Used in conjunction with appropriate supportive measures Ertron has produced beneficial results in more than 80 per cent of cases. "... many patients note an improved appetite, better nutrition and a gain in weight. Some have noted an increased range of motion, lessened swelling, and more normal functional activity with less joint poin." 1

"This medication can be safely administered if the patient is carefully controlled during treatment and the dosage properly administered." In the occasional case exhibiting intolerance to high dosages of Ertron, clinical signs of impending toxicity can be detected early while in the reversible phase.

Ertron is supplied in bottles of 50, 100 and 500 capsules and in packages of six 1 cc. ampuls. Each capsule contains 5 milligrams of activation-products having antirachitic activity of fifty thousand U.S.P. units. Each ampul contains activation-products having antirachitic activity of five hundred thousand U.S.P. units, in sesame oil. Biologically standardized.

(1) Scully, F. J.: M. Times, 76:281 (July) 1948.

(2) Magnuson, P. B.; McElvenny, R. T., and Lagen, C. E.: J. Michigan M. Soc. 46:71 (January) 1947.

Whittier

THEOCALBITAL

tablets for

HYPERTENSION ANGINA PECTORIS CORONARY DISEASE

The advantages of safe gradual reduction in tension, plus mild sedation; helps prevent sudden critical rises in pressure.

SERTS

HEMORRHOIDAL SUPPOSITORIES

Two Formulas for Two-phase Therapy

- 1. SERTS with Ephedrine and Benzocaine FOR INITIAL THERAPY.
- 2. SERTS, Plain
 FOR MAINTENANCE THERAPY.

Serts are also very helpful for preoperative and post-operative therapy.

HEMBRO

(formerly Hembron)

The Ideal Hematinic tablets for all forms of secondary anemia and run-down states.

² formulas

Hembro Plain—iron plus copper plus the 3 key vitamins of the B complex.

Hembro with Liver Concentrate — Hembro Plain plus high quality liver concentrate.

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Please send me complimentar on products checked below:	y samples and literature
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LETTERS

continued

FEE SPLITTING

"I have had no experience with fee splitting. Such a condition has never been mentioned to me and I have never made such a suggestion to those who refer work to me.

I have never heard this matter suggested by any of the other men and it is my opinion that this practice has never been carried out or entered into by the other men."

M.D., New Hampshire

REPRINTS

"I received the selected reprints today and must express myself as feeling that they are of great value in reviewing and keeping up to date.

"I enclose my check for your reprint

binder."

Bernard Berenson, M.D. Portland, Ore.

LIKE MT

"Unfortunately, I have not been receiving MEDICAL TIMES very long and I now realize just how unlucky I have been. Both the journal and the reprints are most useful to me in that they furnish the maximum amount of knowledge of the subject in the minimum amount of reading time. I think this service to the busy practitioner is a very valuable one. . . . "

F. W. Harrell, M.D. Jennings, La.

"I think you are doing a good job and I can't see where any criticism is necessary."

Joseph J. McHale, M.D. Washington, D. C.

MEDICAL TIMES, MAY, 1949

FOR THE Busy Doctor's Office

It Is Accurate • It Is Practical • It Is Smart

Designed to give maximum service anywhere in the busy office . . . the STANDBY Model Baumanometer is light in weight, easy to move and complete in every detail. Simply place it next to the patient—anywhere in the office—by desk, chair or table. This true mercury-gravity instrument with the wide open EXACTILT Scale will give you scientifically accurate bloodpressure readings quickly and with the greatest of ease.

Ask any one of the thousands of doctors using a STANDBY Model . . . they tell us that it is a most satisfactory piece of equipment . . . that it is truly an indispensable part of their armamentarium.

SPECIFICATIONS

Calibration 300 mm. Size $38\frac{1}{2}$ " high x $11\frac{1}{2}$ " wide at base. Weight 7 lbs. Additional 3 lb. weight for base included at no extra charge. Body die-cast of Magnesium. Base and scale die-cast of zinc. Hard wear-resisting enamel Silvertone finish. Lifetime guarantee against glass breakage.

Automatic eye-level reading from either standing or sitting position is accomplished by another EXCLUSIVE Baum feature THE EXACTILT SCALE . . . which is permanently fixed at the precise angle for maximum reading efficiency.

Designed with your office needs in mind . . . No adjustments necessary, it is always ready for instant use anytime . . . ANYWHERE in your office.

Your surgical instrument dealer will gladly send you one for your inspection.

Get the Facts and you will buy a STANDBY Model Baumanometer



WELL BAUM CO., INC., NEW YORK I

Simplified Control of DIAPER DERMATITIS Due to Ammoniacal Urine

metione

REG. U. S. PAT. OFF

[METHIONINE]

GRANULATED

The results of over forty years of investigation establish that ammonia occurs in the urine as a product of internal metabolism.

New clinical findings* demonstrate that METIONE† combats the development of ammoniacal urine, thus preventing or controlling napkin dermatitis due to this cause. The daily administration of 3 grains of methionine as provided in METIONE GRANULATED effected disappearance of ammoniacal urine within two to three days in 54 instances. When given prophylactically to 50 infants, no case of ammoniacal urine developed.

METIONE GRANULATED is designed especially for pediatric use. Dissolves quickly in milk . . . well tolerated.

(This product is not to be confused with METIONE Powder, which is flavored, and designed for use in adults.)

METIONE GRANULATED is supplied in bottles containing 30 Gm. (1 oz.). One level teaspoonful supplies 3 gr. (0.2 Gm.) of D.L.-Methionine. Literature and samples will be sent to physicians on request.

* Goldstein, L. S.: Tuberculology, August, 1948.

†The word METIONE is a registered trademark.



THE DEBRUILLE CHEMICAL CORPORATION
1841-BROADWAY NEW YORK 23, N. Y.



KOAGAMIN'S

New Package and Label Design



Old KOAGAMIN Label Design

KOAGAMIN®

KOAGAMIN-the modern parenteral hemostatic-has not been changed - only the box and label have been redesigned. to keep pace with modern pharmaceutical packaging.

KOAGAMIN assures rapid, systemic control of venous or capillary bleeding, whether of external or internal origin.

KOAGAMIN reduces or makes unnecessary the need for cauterization or topical hemostatics, without danger of infection.



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Available Through Your Physician's Supply House or Pharmacist

A NEW ANTI-ARTHRITIC

for your prescription

SUCCINOL TABLETS

For faster, more lasting control of arthritic and rheumatoid symptoms



THE INDICATION DICTATES THE CHOICE OF MEDICATION

Glycerol (Doho) by Exclusive Specific Gravity—and is Process has the Highest Obtainable
Virtually Free of Water, Alcohol and Acids



IN ACUTE OTITIS MEDIA

REMOVAL OF IMPACTED CERUMEN

AS AN ADJUNCT TO SYSTEMIC ANTI-INFECTIVE THERAPY, AS PENICILLIN, ETC. CONTAGIOUS DISEASE EAR INVOLVEMENTS

"Huralgan

... because its potent decongestant, dehydrating and analgesic action provides quick, efficient relief of pain and inflammation in any intact drum involvement.

FORMULA

Glycerol (DOHO)................17.90 GRAMS (Highest obtainable spec. grav.)

 IN CHRONIC SUPPURATIVE OTITIS MEDIA, FURUNCULOSIS AND AURAL DERMATOMYCOSIS

USE

O-TOS-MO-SAN

... a potent chemical combination (not a mere mixture), combining Sulfathiazole and Urea in AURALGAN Glycerol (DOHO) Base—because it exerts a powerful solvent action on protein matter, liquefies and dissolves exuberant granulation tissue, cleanses and deodorizes, and tends to exhibit at a control of chronic suppurative atitis media.

FORMULA:

Literature and samples sent to physicians on request.

DOHO CHEMICAL CORP.-Makers of AURALGAN and O-TOS-MO-SAN NEW YORK 13

MEDICAL TIMES, MAY, 1949

45a

For Bronchial Asthma in the Season of Supersensitiveness



The connection beween the supersensitive season and asthma is very real to many sufferers. Bronchial asthma often may be due to an allergic reaction in the bronchioles from the absorption of some foreign substance to which the patient is hypersensitive. The connection between pollen and paroxysmal dyspnea is often too close for comfort.

Relief in many cases is obtained through oral theophylline-sodium glycinate therapy, because of the minimal gastric irritation of



THEOPHYLLINE - SODIUM GLYCINATE

It acts to relax the spastic contraction of the bronchial muscles, with a subsequent dilation of the bronchial tree and a flow of more air into the inner recesses of the lungs. Glytheonate also stimulates the myocardium to increased vigor of contraction with subsequent increased blood supply.

Glytheonate is used to treat bronchial asthma and Cheyne-Stokes respiration and to relieve paroxysmal dyspnea of pulmonary origin and paroxysmal attacks of cardiac origin.

Available as

Tablets (uncoated)—325 mg. (5 grs.), representing theophylline U.S.P. 162 mg. (2½ grs.). In bottles of 100 and 500. Suppositories—0.78 Gm. (12 grs.), representing theophylline U.S.P. 0.39 Gm. (6 grs.). In bases of 12 suppositories.

Syrup—Each teaspoorful (5 cc.) contains 325 mg. (5 grs.) representing theophylline U.S.P. 162 mg. (2½ grs.). In pint and gallon bottles.

Glytheonate tablets are also available in three combinations: with phenobarbital; with phenobarbital and racephedrine; and with phenobarbital and rutin. To be dispensed only by or on the prescription of a physician.

THE E. L. PATCH CO.

Boston, Mass.



ALWAYS 7.1 to 7.2 THE PERFECT pH



PHARMACEUTICAL PERFECTION!

- · Standardized raw materials
- · Accurately compounded
- · Assayed for purity
- · Coal tar content higher in active fractions
- Homogenized for perfect emulsification

Write "TARBONIS" for your next coal tar prescription—saves your time, the pharmacist's time and your patient's money.

TARBONIS is available in 21/4-oz., .8-oz., 1-lb. and 6-lb. iars.

THE ORIGINAL

- ECZEMAS
- PSORIASIS
- · SEBORRHEIC DERMATITIS
- INTERTRIGO
- VARICOSE ULCERS
- CONTACT DERMATITIS
- TINEA INFESTATIONS
- PRURITUS

CLEAN, WHITE COAL TAR CREAM

Where infection complicates the clinical picture, SUL-TARBONIS (TARBONIS with 5% sulfathiazole) is recommended. SUL-TARBONIS is available in 24-oz. and 1-lb. jars.

THE TARBONIS Of 4300 Euclid Avenue	COMPANY, Dept. M 1' e, Cleveland 3, Ohio	
Please send me a cl	inical sample of	
TARBONIS	, SUL-TARBONIS	
l		_, M.D
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CITY	ZONE STATE	

You have one outstanding drug



for the treatment of depression

In the depressed patient,

'Dexedrine' Sulfate can be depended upon to dispel the characteristic "chronic fatigue"; to induce a feeling of energy and well-being; and to restore optimism, mental alertness and capacity for work.

Dexedrine's anti-depressant effect is notable for its freedom from distracting elation, irritability and inward nervous tension. Its uniquely "smooth" action spares the patient the uncomfortable feeling of "drug stimulation".

Dexedrine Sulfate Tablets & Elixir

The anti-depressant of choice

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"TOMECTIN" is a combination of nickel pectinate and dried fresh tomato pulp, two therapeutic agents which have been found of value in the management of diarrheas of non-specific origin.

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was usually arrested within 24 hours following treatment. Nickel pectinate

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"Tomectin" will appeal to infants, children and adults because, dispersed in water, it forms a mixture having the refreshing tartness of tomato juice. From the standpoint of therapeutic effectiveness, simplicity of administration and palatability, "Tomectin" will prove a valuable antidiarrheal medication.

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Sodium chloride .			*														*		*			50.0 mg.
Potassium not less th	ian																				*	20.0 mg.
together with other	fac	to	rs 1	nat	ur	all;	p	res	en	£ in	n d	rie	d f	res	sh :	ton	nat	0 7	u!	p	4	780.0 mg.

¹ Malyoth, G.: Klin. Wchnschr. 13:51, 1934.

² Bittner, J. E., Jr.: Northwest Med. 35:445 (Dec.) 1936.

³ Myers, P. B., and Rouse, A. H.: Am. J. Digest. Dis. 7:39 (Jan.) 1940.

⁴Powers, J. L.: Bull. National Formulary Committee 9:5 (Oct.) 1940.

⁵ Block, L. H., Tarnowski, A., and Green, B. L.: Am. J. Digest. Dis. 6:96 (Apr.) 1939.

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On Recent Experiences with Mechanotherapy of Impotence

Joseph Loewenstein, M.D.

Psychotherapist at the West End Hospital for Nervous Diseases London, England

Since the introduction of mechanotherapy of impotence in England in 1941,1 the application of this method by specialists and general practitioners has made promising headway in this country. Also in the United States it has met with mounting interest. This method2 which, though erection is insufficient or altogether lacking, makes introduction of the penis and performing of coitus possible by means of a splint-like support (called C.T.A., i.e., Coitus Training Apparatus), has achieved results in difficult cases of impotence where the orthodox methods, such as psychological treatment and hormone therapy, had failed. In quite a few cases it has led to a complete restoration of Chief explanation of potentia coeundi. these successes is the fact that the use of a C.T.A. safeguards the patient instantly and once for all against a complete failure in performing the act, thereby eliminating the persistent conscious or subconscious fear of failure which so frequently constitutes the main cause of impotence. This change of condition also makes systematical training of coitus possible, which consequently brings about a rapid increase of self-confidence. The vicious circle of fear of failure producing failure, and failure increasing fear, which so often turns impotentia coeundi into a self-continuating disease, is broken up once for all by this mechanical expedient and does no longer bar the way to re-education of the sexual This does not mean, however, function. that mechanotherapy of impotence is a panacea and should and/or could replace psychotherapy altogether. Psychotherapy takes pride of place in the treatment of impotence and is often successful. Yet,

even psychological treatment can make use of mechanotherapy as an ancillary method and a short-cut to success. Mechanotherapy, on the other hand, will be the ultimum refugium in cases which have defied all other treatments, or in cases which are unsuitable for the psychological approach.

To the case histories published in my monograph may be added here another characteristic one.

Case History I

A.W., business man, 34. 16.5.1946. Nine years married, very happy married life but marriage not consummated owing to insufficient erection with premature emission. Previous application of psychotherapy and hormonal treatment unsuccessful. Very strict puritanical upbringing, strong mother-fixation, masturbation from his twelfth year until 3 years prior to treatment. Deep guilt-feelings and fear of impotence. Chaste living prior to marriage. Long engagement. During this time frequent emissions when petting accompanied by fear of getting impotent. Honeymoon a complete sexual failure. Ever since, weakening of erections, only rare emissions with almost flaccid penis. Libido still present. Diagnosis: Primordial impotence with almost completely vanished erections, rare orgasms, yet libido present. 12.6.1946. After short psychological preparation (enlightening and encouraging) began mechanotherapy. 31.7.1946. Erections during love-play becoming more frequent and better sustained. Several times nocturnal emissions accompanied by sexual dreams. Wife co-operating well. Her narrow introitus vaginae widened by bloodless treatment.



30.8.46. Reports two penetrations with inside emission. 20.9.1946. Can now co-habit regularly with support of C.T.A., erections, orgasm, ejaculation inside, satisfying wife. 5.11.1946. At all times fairly good erections during fore-play. 3:12.1946. Regular intercourse, erections steadily improving, worried because no conception occurred. Change of position advised. 2.1.1947. Wife three months pregnant, regular assisted intercourse satisfactory, erections much improved, yet, not perfect. 12.5.47. Can cohabit regularly without C.T.A. 2.9.47. Wife gave birth to a strong, healthy daughter.

The history of mechanotherapy is very ancient. This is not to be wondered at. as the idea of supporting the insufficiently erected penis with a splint, in order to make the ardently desired penetration possible, is pretty obvious and has occurred to many sufferers from impotence. first explorer of sexual pathology, Krafft-Ebing, once wrote: "such a mechanical expedient will always be in demand." And yet, until the end of the last century, medical science took very little notice of those supporting apparatuses which sometimes turned up in obscure shops and were traded clandestinely; or it refused them altogether as something denoting the lustful and debauched. Even the propagation of the C.T.A., which was introduced into medical science eight years ago in Britain, is not wide-spread, nor has it become common knowledge of physicians as might have been expected, though it has been well received in various parts of the world.

Men, suffering from temporarily decreased potency, yet with well developed libido, rarely object to the C.T.A., and women, having altogether a more natural attitude toward sex are, as a rule, quite easily won over to co-operation. pronounced, however, is the resistance in men with lacking sexual development who never succeeded in performing intercourse and never consummated their marriages. Very often they lack the will power and serious intent to rebuild their sexual life. They shun any treatment other than the injection or pill. This may be caused by sex-negative upbringing or by an emotional lassitude and consequent drying up of sexual desire. Still, it must be said here that the cardinal responsibility for the relatively poor propagation of treatments like mechanotherapy lies with the physicians who are withholding it from their patients. Supposedly, one is not far wrong in assuming that the reasons for this are to be found in the subconscious sexual inhibitions of the physicians themselves who are subjected to the influences of sex-taboo education just as much as are their patients and all other peoples of western civilization. Even a medical training cannot always overcome the deep-rooted influences which make it difficult and embarrassing to occupy oneself with the sex-

ual organ or the sexual act, as must be the case in taking the measurements for fitting a C.T.A. or in giving the necessary explanations about handling it or instructing the patient in the proper motions of penetration, coition, and so on. Other props of this attitude of disguised sexenmity are, e.g., the entirely unfounded scruples about progeny engendered in this way, or the deriding of this "love with a machine," or the proud refusal of such a pitiable Ersatz for virility. This unscientific, muddle-headed approach ought to be remedied by devoting oneself unprejudicially to aiding our unfortunate patients, victims of the war between nature and civilization.

Indications

After the publication of my monograph in 1947, the indications for mechanotherapy as therein mentioned (cf. pgs. 28/ 29) have been augmented by a new one,

viz., homosexuality.

Contrary to former opinions on the subject, it is now commonly accepted that genuine homosexuality occurs but rarely. Many men who believed themselves to be homosexuals, or were considered as such on account of their homosexual tendencies or activities, have been forced, through external circumstances and influences, as, e.g., early subornation, or prolonged seclusion from women and living together with men only on board ship, in barracks, prisons, war camps, etc., to develop exclusively their homosexual tendencies which, as a potential disposition, are always present side by side with the heterosexual tendencies. An aggravating circumstance in many cases is the fact that, through educational influences, contact with women is rendered difficult and thus quite often a fear of women develops. I cannot go into details here. However, in the case history of many homosexuals who come to the physician, we hear about abortive attempts at heterosexual intercourse-mostly with prostitutes -which convinced our patients, or enhanced their fear, that they were impotent with women. Psychological treatment is promising in some of these cases. main difficulty which we encounter in

treatment is that each fresh attempt of the patient to cohabit with a woman is doomed to fail on the ground that libido and erection are missing. In such cases the C.T.A. is a veritable deus ex machina, as it enables the man who is still instinctively opposed to the woman to penetrate and cohabit, thereby making the rebuilding and training of heterosexual activities possible. There have been several attempts at a cure by this method, the definite results of which can, however, be assessed only after further long-term Yet, the results obtained observations. so far have been so encouraging that they invite further attempts. It is understood that these patients, because of their complete inexperience, require an exceptionally painstaking enlightenment concerning the technique of the C.T.A. and of coition. A case history of this kind may be related

Case History 2

20.8.1947. J.K., Army officer, 36. Very strict puritanical upbringing, tyrannical father; at 8, frequent attempts at intercourse with his sister; masturbation accompanied by strong guilt feelings from his fourteenth year up to the beginning of treatment. At 17, passionate flirting with girl friend, though no sexual relation. Guilt feelings about it. Henceforth very shy with women. Beginning of slight homosexual tendencies at 28. Entered the Army in 1940. First homosexual activities in 1941, especially mutual masturbation with soldiers, prisoners of war, waiters, etc. Continued until beginning of treatment on 20th August, 1947. During this time several attempts at cohabitation with prostitutes, all of them abortive on account of weak erection and premature emission. This convinced him that he was a genuine homosexual. Confirmation of his opinion by two psychologists who refused treatment as they could hold out no hope for success. On examination no physical traits of congenital homosexuality, bad phimosis. Diagnosis: Acquired homosexuality (heterosexual impotence) and phimosis. Causes of homosexual tendencies: Strict upbringing (living at home until his 25th year), strong Oedipus and masturbation complexes, early incestuous activities. The complete suppression of heterosexuality by these various influences made possible the development (at 28) of homosexual tendencies through opportunity and by choosing the line of

least resistance.

Treatment: After operation for phimosis short enlightening psychological treatment. Beginning of C.T.A. treatment 1st Nov., 1947. On 19th Nov. first attempts at assisted intercourse with girl friend (virgo); not very successful, yet penetration achieved. 29.1.48. Regular intercourse assisted by C.T.A., satisfactory for both parties. 1.3.48. For the last four weeks normal sexual activities with same girl friend. C.T.A. discarded. 18,3.48. After ten months of unbroken heterosexuality one relapse into homosexuality. Deep depression, almost panic. 1.11.48. Since the relapse in March no more homosexual activities, yet, now and then, homosexual dreams. Continuation of relationship with girl friend. 1.3.49. Regular normal sexual relationship with same girl friend. Sexually interested also in other women. For a whole year no more homosexual activities; occasional homosexual dreams; patient encouraged to marry. Guidance continued.

With some justification we may consider this case of homosexuality as cured. This success was solely due to mechanotherapy. No other treatment, including psychotherapy, could have broken through the barriers of homosexual mechanisms by making penetration and coition as well as training of the heterosexual mechanisms possible.

C.T.A. and Artificial Insemination Using Husband

In my monograph I quoted eight cases where children were engendered by intercourse assisted by the C.T.A. In the meantime, a further four cases have come to my knowledge (it is exceptionally difficult to obtain data from former patients to follow up a case, as cured patients try to forget their period of weakness as quick.

ly and completely as possible). Almost without exception these children were conceived before the husbands' impotence was cured. Mostly the first few assisted cohabitations performed with insufficiently erected penis achieved these gratifying re-This would suggest that the application of mechanotherapy be recommended as an alternative method to A.I.H. (the Report of a Commission on Artificial Human Insemination, appointed by His Grace The Archbishop of Canterbury, also draws attention to this method. Cf. note, pg. 7 of the report) in all those cases of marriages which are sterile through the husband's impotentia coeundi due to lack of erection but where fertile semen is present, before one embarks upon the application of A.I.H. I discussed the relations between Mechanotherapy and A.I. in my paper on 'An alternative Method to A.I." and came to the conclusion that, given a free choice, mechanotherapy is the treatment of preference for the following reasons:3

Usual Methods of Artificial Insemination Using Husband

- 1. Husband's semen has to be obtained by masturbation with all its ethical, aesthetic and religious objections.
- 2. Insemination, as a rule, involves several operations, associated with unpleasantness, publicity and lowering of dignity.
- 3. The psychological situation of the married couple is not improved. Procreation through masturbation and without intercourse may subconsciously influence adversely the husband-wife relationship. No establishment of sexual union. husband's inferiority feelings are increased; his impotence remains unchanged.

Application of C.T.A. Treatment

- 1. No masturbation necessary: production of semen occurs in the natural way, i.e., during sexual intercourse.
 - 2. The deposition of semen takes place -Continued on page 225

SPECIAL ARTICLE

Obesity

This summarization attempts to cover the essential therapeutic information on the subject and is designed as a time-saving refresher for the busy practitioner.

Reprints available*

Obesity is that physical state in which there is an excessive accumulation of fat in the body. Although an obese individual is generally unattractive in appearance, this is not the chief reason for the physician to be concerned about the condition. There are many hazards associated with obesity for it can be a predisposing factor in such conditions as diabetes, gout, cholelithiasis, varicose veins, hypertension, pulmonary emphysema, arteriosclerosis, degenerative arthritis, cirrhosis, acute and chronic nephritis and toxemia of pregnancy. In fact statistics show that the incidence of these conditions is greater in obese individuals.1 In addition, an obese individual is less resistant to infections and is a greater surgical risk.2, 3, 4 Obesity is also a social and occupational handicap as well as the cause for considerable mental distress in many individuals. Even suicide is more common among obese individuals.5 Statistics have revealed that in individuals between the ages of 45 and 50 years an excess weight of 25 lbs, is responsible for a 25 per cent increase in mortality.6 Another study has shown that an excess weight of 50 pounds is responsible for a 56 per cent increase in the death rate and an excess of 90 pounds is responsible for 116 per cent increase in the death rate.7

Incidence

Although excess accumulation of fat in the body may occur at any time in life, it generally is observed during the middle period. It is not uncommon to find individuals who are over 30 years of age having a 10 to 15 per cent excess in weight over the desired weight for the age. Women are more often affected than men but this condition is not limited to either sex.

Etiology

Obesity basically results from a positive energy balance which is brought about by the ingestion of more calories than the expended energy requires. Because the principle of conservation of energy applies also to human beings the calories which are consumed but not used are stored as carbohydrate and protein. However, the body has a limited storage capacity for these substances so that the excess is converted into fat and stored. There have been many theories advanced as to the cause of obesity. Many, such as that of more complete digestion or more efficient absorption, have been disproved.8 The general distribution of adipose flesh is not explained by lipophilia or the ability of tissues to take up fat more easily and to retain it more firmly.

A. Endocrine

In the past many believed that obesity was caused by some morbid endocrine imbalance. In fact many obese individuals prefer this theory because it is an easy excuse for their condition. However, it is now recognized that the state of obesity is brought on by a positive energy balance resulting from overeating. The reason for the overeating may be psychogenic, neurogenic, endocrine, habitual, environmental or of some other origin. There are some few instances of obesity due to pathologic lesions such as in epidemic encephalitis in

^{*}From the Editorial Research Department of the MEDICAL TIMES, 67 Wall Street, New York 5, N. Y. Permanent library binders, sufficient to hold 2 different "refresher" reprints, sent postpaid \$2.50.

which the hypothalamus is damaged. The hypothesis has been stated that there is a center which controls the appetite in the diencephalon and that there may be an hereditary factor here in that the tendency to obesity might depend upon the type of hypothalamus inherited.9-12 Animal experiments have shown that obesity develops if the pituitary is destroyed and the hypothalamus is injured but obesity does not follow destruction of the pituitary alone as it does the hypothalamus alone. The obesity is still the result of increased food intake and decreased activity. In this type of case the obesity develops rapidly in a previously normal individual. In Fröhlich's syndrome, usually observed in adolescent boys, there is generally some obesity. Administration of gonadotropins usually restores the endocrine balance and reduces the obesity. In these cases the endocrine imbalance is not the cause for the obesity but is in reality an associated condition.3, 13 An excess of fat accumulated in the tissues which accompanies adiposogenital dystrophy may be caused by the disturbance of the hypothalamus but generally the localization in certain areas is the same as that which characterizes hypogonadism brought on by an insufficiency of pituitary. Clinical studies have shown that destruction of the pituitary is responsible for pituitary cachexia rather than obesity. It has been suggested that Fröhlich's syndrome and adiposogenital dystrophy be limited to describe males who are past the age of normal puberty but who are obese, sexually immature and show evidence of lesions of the hypothalamus and pituitary.14 Obesity which is limited to the head, neck and trunk is observed in Cushing's syndrome which is caused primarily by an excessive adrenal cortex secretion and secondarily by pituitary basophilism. In conditions of hyper-adrenocorticism unaccompanied by pituitary disruption there also appears a similar obese condition. Hypothyroidism is often accompanied by a condition of obesity. In such cases the fat deposits are generally observed in the face, neck, wrists. ankles and supraclavicular regions and are usually caused by retention of water in the tissues and fat storage.3 However, some

have reported that cases of spontaneous myxedema have no tendency to be obese and therefore they feel that there is no conclusive evidence for this. They feel that this is also substantiated by the fact that in obesity the basal metabolism is usually normal.15, 16 Abnormal hunger is generally brought on by hyperinsulinism and if the food intake is not controlled obesity results. Obesity frequently results following removal or a disease condition which destroys the gonads because the individual becomes more sluggish and tends to exert himself less. The basal metabolic rate may also show a moderate decline. As men grow older and their sexual activity becomes less they may show similar changes. Women, following the menopause, frequently show these symptoms and generally they are better defined than in men. The adipose flesh is generally observed around the breasts, abdomen, hips and thighs as is observed in hypogonadism.

B. Basal Metabolism

Obesity due to the aforementioned conditions or to a low metabolic rate is not so common. If the food intake remains normal and the basal metabolism is lowered storage of excess fat does result. But such cases are not often found. Studies of the basal metabolism of obese individuals may reveal negative values. However, such negative values may be misleading. The basal metabolism values should be corrected first for the amount of the body weight which is storage fat. After this is done the patient generally will show a basal metabolism above normal or within the normal limits. Of course some individuals may require more food than others in order to maintain the proper caloric balance but they will not develop obesity. It is also possible for a positive energy balance to develop as a result of the consumption of the same quantity of food but accompanied by a considerable reduction in expenditure of energy which is less than the normal. Obese individuals have been found to complain that they do not get enough to eat when they are placed on an adequate but restricted diet to reduce their weight.

C. Inactivity

Obesity or at least a gain in weight frequently occurs in patients who are bedfast for some time such as in the case of a fracture, poliomyelitis, tuberculosis or other similar conditions. This results if the food intake is maintained at the normal level at times such as this when the energy expended is so restricted.

D. Heredity or Environment

The tendency to obesity may be inherited. Some families tend to be more fat than others. This is more defined in animals than in humans. In humans it is a question as to whether it is a case of heredity or whether it is really the environment. It is believed that it varies with the individual and that in some heredity is of major importance whereas under other circumstances or in other individuals environmental and psychologic factors may be more important. 17, 18 Some individuals enjoy food to such an extent that they "love to eat" and as a consequence often make that a major portion of their waking hours. Consequently, if a child is raised in a home where the mature members of the family habitually overeat it also becomes a habit with him.3, 19 In some homes the food supply is so insecure and uncertain that the children develop a habit of aggression toward food and eat all they can possibly obtain. Such habits may become so strong that in maturity the individual may continue to overeat despite the fact that the causative situation no longer exists. The mother plays an important role in the home in establishing eating habits in the child. She may consistently encourage the child to overeat because she prepares good meals and expects everyone to consume with pleasure the results of her efforts.14 She may also force food upon the child to atone for her basic feeling of not wanting the child or to atone for some mistreatment which she or someone else has inflicted upon the child.20

Continual proximity to food, such as by individuals working in places where food is sold, may lead to overeating. Many people in business, who combine business with their noonday and evening meals have a tendency to overeat.

Common human traits are enjoyment of food and avoidance of exertion so that most individuals who overeat generally avoid exercise and exertion as much as possible, and prefer sedentary occupations. The development of obesity in such instances if not extreme can be reduced simply by forming new habits.

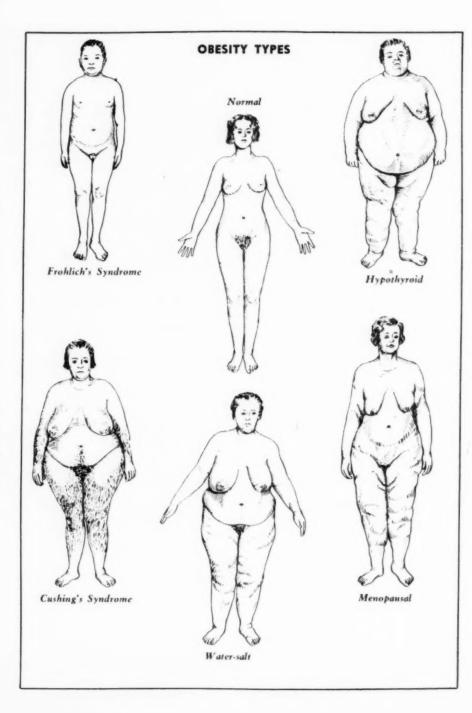
E. Age

Age is also a factor in obesity. As the individual grows older he has a tendency to reduce his activities but frequently does not reduce his intake of food. This should be avoided since persons who maintain their weight at slightly below normal have a greater life expectancy. Because weight gain causes a decrease in longevity it is doubtful that it can be considered a normal phenomenon with advancing years.

F. Psychogenic Causes

It is generally agreed that obesity in a majority of cases is neurogenic or psychogenic in origin. This is equally true of individuals who are too thin. Studies have shown that psychologic aberrations are responsible for a large group of these cases but it has not as yet been determined why emotional disturbances will cause one individual to become fat, another to become thin and have no effect on a third. 19, 21-23

In those cases where frustration, overcompensation or lack of emotional satisfaction is responsible for obesity it frequently develops beyond the normal limits which can be easily controlled and becomes extreme. Most individuals can maintain their normal weight within reasonable limits without any real conscious effort. Their caloric requirements for energy appear to automatically control the intake. It is suggested therefore that the psychologic drives governing appetite, satisfaction and actual physical energy are controlled by the metabolic processes and nutritional status of the body. When these psychologic factors are upset the balance of intake and output is also deranged. As a result pleasure in



eating may become a dominant trait 3 because it is one type of self-indulgence and pleasure which will compensate the individual when the usual means of satisfying his emotions are hindered. As shown above it is not a physiological need because the appetite may on the other hand be decreased by the emotions. In many cases an extremely large quantity of food may be necessary to make the individual feel replete after a meal. There are many circumstances which may bring on this condition as for example in the individual who is used to exercise and great muscular activity who is suddenly prevented from indulging in this pleasure; the person whose social, sexual or business desires are not satisfied; the woman who is aging and feels she is becoming unattractive to men; or the young woman who worries because she does not have any young male friends. Times in life such as marriage, childbirth or the menopause, all of which create a great strain on the individual, often result in an abnormal desire for food. Sorrow or anxiety are also responsible. In many cases the individual is not aware of this great urge to eat and in some cases it is so powerful that even the suggestion that it will shorten the life span is not effective in causing him to exercise control. The desire for food may result in an addiction just as to alcohol, which condition is also a symptom of some pyschological maladjustment. As the patient becomes obese he has a tendency to fulfill certain desires by imagination in his daydreams and thus decreases his expenditure of energy while increasing his caloric intake. A vicious circle is established eventually. He becomes socially and sexually more unattractive and as a result his desire for food increases.

Some individuals who develop obesity may do so as a defensive or offensive measure. In the former case the condition might be used as an excuse to avoid undesirable activities and in the latter it may be employed as a means of gaining attention and care.³

In most individuals where obesity is the result of psychological maladjustment the most difficult task is to convince the patient that this is so. Most such individuals prefer to hide behind the belief that it is due to some glandular deficiency; or that it is a family trait and to reduce might impair the health.

G. Physiologic and Psychologic Causes

Some cases of obesity are due to a combination of physiologic and psychologic factors as for example in cases where there is some definite endocrine imbalance. In cases of disturbance of the hypothalamus and in hypogonadism which are accompanied by adiposogenital dystrophy the patient is sexually deficient and as a result substitutes eating for the other satisfactions. This is also possible in hyperinsulinism which brings on a hypoglycemia which in turn increases the hunger for carbohydrates.

H. Elimination

There are certain types of obesity which are caused by faulty elimination in that fluids and salts are retained in the body, causing an increase in weight and an appearance of obesity.^{4, 24}

Symptoms

The body normally has a certain amount of fatty tissue which serves as a source of energy and also as a structural support. The subcutaneous tissues are generally the storage sites for this fat which aids in giving a healthy body pleasing contours. In some individuals, particularly if they are muscular and considerably active, excess fatty tissue may be so well distributed over the body that they will not appear to be over-weight but rather solidly built. In those individuals who are usually not very active and are chiefly sedentary the excess fat generally is stored in the breasts, abdomen, buttocks, hips and thighs of women and in the abdomen of men. In severe cases of obesity the face, neck, forearms and legs also are affected. The subcutaneous fat layer may be 10 cm. or more in thickness in extreme cases and fat may be stored in excess in the omentum, mesentery, retroperitoneal tissues, perirenal tissues, mediastinum and the pericardium. The pancreas and heart may be infiltrated and the liver may be

enlarged and a fat vacuole observed in each cell. The fascial planes between the

muscles may have fat deposits.3

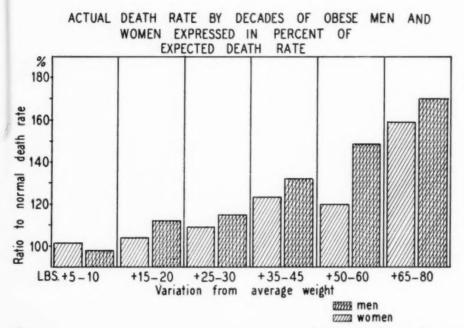
Obese individuals usually find it difficult to breathe and they become easily fatigued. These symptoms increase as further weight is gained. An increasing degree of incapacity is experienced as the bulk of the body increases. Arthritis of the knees and lower back and flat feet are commonly observed. As the deposition of fat increases it causes the skin to roll which often results in maceration and infection between the rolls. The circulation is impaired.³ As stated previously obesity is the predisposing factor in a great many conditions and in some diseases may also increase the likelihood of fatality.

In diagnosing obesity the ideal weight and the degree of obesity for the particular individual should be determined. Charts are available which give the approximate limits but if more specific figures are desired they may be calculated from the skeletal measurements. This latter method is the more desirable since the average weight of an individual increases in middle life but the optimal weight remains the same. It is necessary also to determine the basic cause of obesity before proper therapy can be instituted.

Prognosis

The prognosis in obesity is good provided the physician determines the underlying cause of the condition and either removes it or institutes measures to control it. It is necessary also to educate the individual so that he understands the situation and cooperates with the physician. He must be trained to understand that he can eat moderately, maintain his weight at the proper level and still feel well. He must be educated to new dietary lines and new habits. 3, 20 When this is accomplished it should not be difficult to regain the normal weight.

Some effects of obesity on health and longevity have been described previously. In addition to those statistics it also has



been shown that cardiovascular-renal disease is more apt to cause death by 62 per cent in obese individuals than in those with normal weight.²⁵ Obesity in diabetes causes a death rate of two and one half times that in the normal weight patient. A study of girth in relation to death has shown that persons who have a slight excess of weight until they are 30, average weight from 30 to 40 and a definite deficiency of weight after 40 years of age have a greater life expectancy than any other persons.²⁶

Therapy A. Prevention

Patients who have a tendency to be obese for any one of the many reasons named should be advised to establish proper eating habits so that an excessive gain in weight is prevented. This is true also of patients who are approaching middle age. The wisest and easiest course is to prevent obesity rather than to allow it to develop. Most all types of obesity can be treated by reducing the quantity of food ingested or by increasing the amount of energy expended or by a combination of both.

B. Exercise

Exercise alone is not sufficient to reduce an obese individual because it has been shown that a man weighing 250 lbs. would have to walk 26 miles to lose 1 lb. of fat.5 Others have reported that it is necessary to walk 1 mile to eliminate 100 calories and 36 miles to lose 1 lb.5.6 However, moderate exercise at regular intervals is a valuable adjunct to diet therapy and should be recommended both in prevention and therapy of obesity. Exercise may be indicated to induce energy expenditure. Although some feel that strenuous exercise such as tennis, golf and horseback riding is valuable others state that such exercise as well as routine calisthenics stimulates the appetite and results in an increase in food intake. Because prolonged cooling of the body surface results in an additional loss of

energy some believe that swimming is excellent. However, as soon as the individual acquires skill in any exercise its value for reducing is diminished. Routine housework is not sufficient and does not replace regular exercise. The warning has been sounded that there is a possibility of becoming acidotic if the patient on a low caloric diet exercises too strenuously. For general improvement of the health and muscle tone exercising moderately in the form of golf, swimming or walking is indicated. In those patients with myocardial disease, an orthopedic condition or some similar condition exercise, of course, is contraindicated. Studies have shown also that massage and local applications of heat do not affect localized fat deposits.27

C. Endocrine Medication

In those cases of obesity where the basic cause is hypogonadism the administration of gonadotropins or gonadal hormones will generally be of value.

If there is definite evidence that hypothyroidism is involved thyroid may be of value if given in small doses (less than 2 gr. daily) sufficient to maintain the basic metabolic rate at normal. The presence of a low basal metabolic rate does not necessarily indicate hypothyroidism as many normal patients may have a -20 reading. In diagnosis the blood iodine also should be studied. In cases of obesity and hypothyroidism both restricted diet and thyroid are necessary since thyroid will not do it alone.²⁸

Thyroid has been used in the past in treating obesity because it has an effect in stimulating the combustion of fat but the dosage needed to acomplish this is almost that of the toxic level. The usefulness of the drug therefore is overcome by its possible toxic effects (particularly on the heart) and it should not be given unless there is hypothyroidism. Many studies in this respect have confirmed this and some have reported cases of thyrotoxicosis occurring after using thyroid for weight reduction. The toxic effects

of thyroid in turn cause nervousness and irritability and may result in the development of a stronger appetite. Administration of thyroid may result in a rapid loss of weight but if the food intake is not controlled the patient may regain weight just as rapidly. Thyroid therapy is particularly dangerous in older patients with small cardiac reserve. Liver and bladder disturbances often result. In children and adolescents the entire neuro-endocrine equilibria may be upset and such large doses are required for effect that they cannot be given safely.35, 36

D. Cathartics, Diuretics

Some physicians advocate the continuous use of a cathartic so as to flush the intestinal tract before the ingested food is assimilated but this may result in serious gastro-intestinal disturbances. Increasing perspiration by means of diuretics and heat therapy may result in the excretion of a few pounds of water but the sense of achievement is false.14 In those obese patients who retain large amounts of water and sodium chloride some believe that the intake of sodium chloride should be sharply restricted. Others believe that diuretics are indicated.24

E. Other Drugs

Many drugs have been employed in the therapy of obesity. Posterior and anterior pituitary extracts, estrogens and ovarian extracts have been tried but they are not advocated.4 Dinitrophenol achieved a great deal of popularity some years ago until it was proven to be not only highly toxic but also ineffective. Belladonna tincture, alone or with a sedative, when given to a small series of cases, resulted in reducing the appetite but this too is considered to be a somewhat dangerous procedure.2. 37 The use of digitalis leaves in doses of 60 to 120 mg. 3 times a day at meals has been proposed to reduce the appetite but here again the use of such a potent drug is questioned.2. 38 Atropine, salts and glucose have been tried also with no evidence of any benefit.14

F. Anorexigenic Compounds

As the discussion of therapy of obesity has progressed it is plainly indicated that restriction of food intake and psychotherapy are the two chief modes of treatment and these will be discussed in detail further along.

In spite of encouragement on the part of the physician and repeated attempts by the obese individual to adhere to a restricted intake of food many individuals fail to do so. Consequently, many authorities feel that they should be given the benefit of a "crutch" in the form of one of the anorexigenic drugs because of the serious consequences of marked obesity. They feel that it is necessary to face the situation as it exists in reality rather than as it should exist in the ideal state.5 Others believe that the patient should be forced to adhere strictly to the diet.

The anorexigenic drugs, when indicated, should be given in conjunction with a limited diet and should be used as adjuvants to a dietary therapy. These anorexigenic drugs control the appetite and make it easier for the patient to adhere

to the diet.

I. Amphetamine Sulfate, N.N.R.

One of the first drugs to be used for this purpose is amphetamine sulfate, N.N.R. Although this drug appears to restrict the appetite it has been demonstrated that it really depresses gastric hunger motility. It is given in doses of 5 mg. 3 times a day, 30 to 60 minutes before each meal. If there is no loss of appetite after this dosage it should be increased to 10 mg. Some have reported using as high as 10 to 15 mg. 3 times daily39 but this is to be considered as maximal since it has been shown that 5 mg. is effective.40 Some recommend that the drug be given in doses of 5 mg. upon arising, at 11 A.M. and at 4 P.M.41 The dosage should be adjusted to the needs of each individual and should not exceed 30 mg. a day. It is recommended that smaller doses be given at first and increased gradually until the desired results are achieved. Many have reported that this drug has

proven satisfactory in weight reduction. 21, 39-44 It is generally agreed that patients may seek continual use of this drug as a "crutch" and that this is to be discouraged. It should be used as a temporary measure to aid in forming restricted habits of eating and after a few months should be discontinued. After this period the restricted habits should be so well developed that they will continue after the drug is stopped. Shrinking of the stomach during this period may also decrease the hunger sensation. Some individuals may require considerable education as to proper food habits while the drug is being taken or, after its discontinuance, they may return to their old habits. Some few workers have reported this drug to be of no value because they found that it had no effect after a few doses.45

There are some side effects from amphetamine sulfate which have been experienced. Some have reported that following single large doses there was observed for several hours a limited degree of tachycardia, hypertension and elevation of the metabolic rate.46 However, it has been reported that such effects have a tendency to be much less when the drug is administered continuously.47 Also the relatively small doses which are used to curb the appetite should cause only minimal cardiovascular effects. Because the circulatory system of the obese individual is already under great stress it is suggested, however, that in case of failure the dosage should not be increased beyond the customary one necessary to restrict the appetite.33

It is believed that there is very little danger of developing an addiction to amphetamine sulfate provided the drug is taken as indicated and under supervision. 4.21 It is not likely to induce or aggravate hypertension. One worker has reported that in none of more than 800 patients was it necessary to discontinue the drug because of ill effects on the blood pressure. In fact in many the reduction in weight was followed by a decrease in blood pressure. 4

Other side effects include dryness of the mouth, temporary exhilaration with a sense

of intoxication lasting for a few days, apprehension, depression, exhaustion, headache, dizziness, halitosis, burning in the throat, heartburn, nausea, vomiting, constipation, and insomnia if taken too late in the day. Use of chewing gum relieves the dryness of the mouth. One-half to 1 gr. of phenobarbital will relieve the exhilaration. In order to prevent the insomnia some recommend that the drug should not be given after 4 P.M.41 and others after 7 P.M.4 Still others believe it should not be given after the noon meal.3 If it is necessary to administer it after 7 P.M. 1/2 gr. of phenobarbital should be given along with it.4 Patients with hypertension have been given amphetamine along with phenobarital and no significant increase in blood pressure has been observed.21 Several hundred cases of obese children have been given amphetamine sulfate without any addiction or untoward results.45

Amphetamine sulfate administration is contraindicated in those patients with insomnia, excitability, undue restlessness, coronary impairment or other conditions where vasoconstrictors are contraindicated or where there is a hypersensitivity to epine-phrine-like compounds. It should be administered cautiously in cases of hypertension or cardiovascular disease. Habituation must be kept in mind despite the fact that only rarely have such cases been reported. It is considered unwise to give this drug when the patient is pregnant.

2. Dextro-Amphetamine Sulfate

The dextrorotatory isomer of amphetamine sulfate known as dextro-amphetamine sulfate also has been found of value in diminishing the appetite.^{5, 39} This drug also acts by stimulating the central nervous system. It is administered in doses of 15 to 20 mg. daily in 3 divided doses given before breakfast, at 11 A.M. and at 4 P.M. In some instances it may be necessary to alter this by giving the largest dose at the time the patient experiences the greatest hunger. In a report in which 10 to 15 mg. of amphetamine sulfate were used it was found that the dosage of dextro-amphetamine sulfate was just half. However, these

were considered maximal.³⁹ This drug has the same contraindications and cautions in administration as has amphetamine sulfate.

3. Other Aminopropanes

Both amphetamine and dextro-amphetamine are aminopropanes. Recently there have been developed other new aminopropane derivatives which have been shown to have slightly weaker anorexigenic effect but do not interfere so strongly with sleep. A survey of these new compounds has led to some workers expressing a preference for dextro-amphetamine (dextro-1-phenyl-2-aminopropane), p-methyl amphetamine (dl-1 (p-methyl-phenyl 2-aminopropane), dl-1-cyclohexyl-2-aminopropane and dl-1 cyclohexyl-2-methylaminopropane. Of these the first is the only drug generally available. In a report on these drugs it was stated that there is very little advantage (except in rare cases) of giving any of the anorexigenic compounds before breakfast because most obese individuals do not crave food before this meal and that most consume the greater portion of food between 4 P.M. and bedtime. Because of the insomnia-producing effects these drugs cannot be given between 4 P.M. and bedtime with the exception of p-methyl amphetamine. This drug does not interfere with sleep even when taken as late as 9 P.M. but it does not have as strong an anorexigenic effect as does dextro-amphetamine. In this study it was suggested that optimal therapy is achieved by the following regimen: 5 to 15 mg. of dextroamphetamine at 10 A.M. and 40 mg. of p-methyl amphetamine at 4 P.M. and again at 8 P.M. Because there is a tendency for the patient to lose some responsiveness to aminopropane therapy after it has been used continually for several weeks it may be necessary to take a rest period of 4 or more weeks after which the initial responsiveness is again regained. In the above regimen it is recommended that after several months the patient be switched to dl-1 cyclohexyl-2-methylaminopropane.

This same authority believes that the beneficial effects, such as the feeling of ambition and energy and the sense of wellbeing on the part of the patient far outweigh the untoward effects of these drugs.⁵ Others do not completely agree with this.²⁶

4. Desoxyephedrine Hydrochloride

Another drug which is closely related to the drugs described above is d-desoxyephedrine hydrochloride. This drug also acts as a central nervous system stimulant and is employed to restrict the appetite in obesity. It is of value like the other drugs in those patients who are attempting to overcome depressive states by overeating. Its actions differ from amphetamine only in degree. It is believed to have slightly greater central stimulant effects and slightly less circulatory action than amphetamine.48 It may be given in doses of 3 to 6 mg. daily without side-effects but any greater dose may produce side effects which counteract the benefits.49 The recommended dosage is 2.5 mg. and if necessary this should be increased by increments of 2.5 mg. until the optimal effect is achieved. The contraindications for ddesoxyephedrine are the same as for amphetamine. It should not be given within 4 hours of bedtime.48

G. Psychotherapy

Because obesity in many cases is brought on by the psychic urge to eat in order to compensate for certain emotional disturbances, psychotherapeutic measures are very important in the therapy of obesity. Some feel that they may be overemphasized too much but as with everything there are extremes. Formal psychiatric therapy is not necessary in most cases but an understanding attitude and an adequate explanation on the part of the physician will help considerably. The patient must be made to appreciate the basic reason as to why he has the great urge to eat and that unless he is cooperative in adhering to the diet he will simply develop the vicious circle described previously. The patient must be warned of the dangers to his health and the shortening of his life if he continues to be obese. The physician must impress upon the patient his own confidence in the dietary program and when giving him the sheet of instructions he should carefully explain it so that the patient will have

respect for the diet and for the physician's concern. The patient must be impressed with the fact that the strict diet will not harm him despite what his friends may say. In order to impress the patient with the seriousness of the condition and to bolster his own determination he should be requested to visit the physician regularly.14 In some cases of great emotional instability the help of a trained psychiatrist

may be necessary.

Reports in the literature have shown that psychotherapy has resulted in a return of a sense of well-being, vigor, resistance to fatigue and to the disappearance of various minor ailments such as headache, breathing difficulties, menstrual disturbances and others. The improvement noted has been far in excess of that which should result from the loss of a few pounds. 50-53 Some workers have reported that psychotherapy resulted in success without the use of a diet.54

H. Diet

Except in very mild cases of obesity dieting is indicated. The degree of dieting depends upon the amount of excessive adipose tissue which must be dissipated and the rapidity with which it is to be dissipated. It is necessary that the patient be made to live from the surplus fat he has stored but in order that there be no depression of metabolism he is allowed a restricted intake of food. The patient who is placed on a strict diet must be warned not to become discouraged if after a week's time he has lost no weight since many times the process may be slow in starting. This lag is due to retention of water in the tissues which lasts only a few days and is followed by a sharp drop in body weight if the diet is maintained.

There are several variations of diets prescribed and there are some differences of opinion among the various authorities as to how radical the dieting should be.

In Tables 1 to 4 are shown a series of diets which range from 450 to 1000 calories. Sample menus and where possible the household measures have been included. Tables 5 and 6 show the values for various

Table 1

Reduction Diet, Four Hundred and Fifty Calories Protein 60 Gm., Fat 9 Gm. and Carbohydrates 32 Gm.

Menu Plan

	Breakfast:	Household Measure		
	6 per cent fruit Skimmed milk Coffee	1 serving 1 glass	20	0 Gm. 0 Gm. libitum
	Luncheon:			
	Meat or fish 3 per cent vegetable Skimmed milk	2 oz. 1 serving ½ glass	100	Gm. cooked Gm. Gm.
ı	Dinner:			
-	Meat or fish 3 per cent vegetable Skimmed milk	3 oz. 1 serving ½ glass	10	0 Gm. cooked 0 Gm. 0 Gm.

Sample Menu

Breakfast:	
Melon Skimmed milk Coffee	100 Gm. 200 Gm. ad libitum
Luncheon:	
Boiled shrimp* Lettuce and tomato salad Skimmed milk Coffee	100 Gm. 100 Gm. 100 Gm. ad libitum
Dinner:	
Lean corned beef String beans Cole slaw (raw cabbage with	90 Gm. cooked 60 Gm. cooked
vinegar and seasonings) Skimmed milk Coffee	40 Gm. 100 Gm. ad libitum

*100 Gm. of shellfish has the caloric value of 60 Gm. of lean meat or fish.

foods.55 The group who originated this series of diets routinely use the 450 calorie diet.6 The emphasis on green leaves and fruit in this diet is carried out because their bulk partially compensates for the small quantity and because they also furnish vitamins. Vitamin B complex or brewer's yeast also is given as a supplement. The 0.5 Gm. of calcium supplied in the skimmed milk is adequate for an adult. Almost all of the protein is animal in origin. No limit is placed upon fluid intake.

Patients placed on a diet of 450 calories will lose 3 to 5 lbs. per week and in 3 or 4 months should lose 50 lbs. Once the losing process has started it is not quite so difficult for the patient to adhere to the diet. In cases where the patient does heavy work he may find that he cannot continue his work. In such instances a

Table 2

Reduction Diet, Six Hundred Calories Protein 65 Gm., Fat 9 Gm. and Carbohydrate 65 Gm.

Menu Plan

Brenkfast:	Household Measure	
6 per cent fruit	1 serving	100 Gm.
Bread	1 slice	30 Gm.
Skimmed milk	1/2 glass	100 Gm.
Coffee	******	ad libitum
Luncheon:		
Ment or fish	2 oz.	60 Gm. cooked
3 per cent vegetable 6 per cent fruit or	1 serving	100 Gm.
vegetable	1 serving	100 Gm.
Skimmed milk	1 glass	200 Gm.
Tea or coffee	******	ad libitum
Dinner:		
Meat or fish 3 per cent vegetables	3 oz.	90 Gm. cooked
1 raw	1 serving	100 Gm.
1 cooked	1 serving	100 Gm.
9 per cent fruit or		
vegetable	1 serving	
Milk	3/2 glass	100 Gm.
Tea or coffee	*******	ad libitum
Samp	ole Menu	
Breakfast:		
Melon slices		100 Gm.
Bread, toasted, dry		30 Gm.
Skimmed milk		100 Gm.
Coffee		ad libitum
Lunch on:		
Cottage cheese with oli Head lettuce (dressed t	with tara-	90 Gm.
gon vinegar and con-	diments)	100 Gm.
Raspberries		70 Gm.
Skimmed milk		200 Gm.
Dinner:		
Ground beef patty, bro	iled	100 Gm.
Beet greens with lemor	1	100 Gm. cooked
Sliced tomato		100 Gm.
Peaches, water-packed		100 Gm.
Skimmed milk		100 Gm.
Coffee		ad libitum

higher calorie diet may be advocated. The 800 or 1000 calorie diet is only given when absolutely necessary. However, as the patient progresses to the desired weight he may be allowed the higher calorie diet.⁶

In rapid loss of weight on diets of 450 to 1000 calories the food is generally weighed. When the weight is to be lost more slowly diets of 1000 to 1500 calories may be prescribed and in such cases the foods are measured by volume. Although the weighing of foods is a nuisance it is justified in cases where the calorie intake must be strictly limited since volume measurement usually results in an excess of

200 or more calories¹⁴ and empiric measurement results in an even greater excess.

The dietary regime prescribed by some workers is shown in Tables 7 and 8.14 No limit is placed upon salt and water intake. In order to insure that vitamin intake is adequate the patient should be instructed

Table 3

Reduction Diet, Eight Hundred Calories Protein 73 Gm., Fat 28 Gm. and Carbohydrate 65 Gm.

Menu Plan

	Household		
Breakfast:	Measure		
6 per cent fruit	1 serving	100	Gm.
Egg	1	50	Gm.
Bread	1 slice	30	Gm.
Butter	1 teaspoon	5	Gm.
Luncheon:			
Meat or fish	2 oz.	60	Gm.
3 per cent vegetable	1 serving	100	Gm.
6 per cent vegetable or fruit	1 serving	100	Gm.
Skimmed milk	1 glass	200	Gm.
Butter	1 teaspoon	5	Gm,
Dinner:			
Meat or fish	3 oz.	90	Gm.
3 per cent vegetable			
(1 raw, 1 cooked)	2 servings	200	Gm.
9 per cent fruit or vegetable	1 serving	100	Gm.
Skimmed milk	1 glass	200	Gm.
Butter	1 teaspoon	5	Gm.

Sample Menu

Breakfast:	Household Measure	
Strawberries	1/2 cup	60 Gm.
Poached egg	I	50 Gm.
Whole wheat toast	1 slice	30 Gm.
Butter	1 teaspoon	5 Gm.
Black coffee	ad libitum	ad libitum
Luncheon:		
Crab meat salad:		
Diced celery	14 cup	60 Gm.
Crab meat	1/2 cup	120 Gm.
Minced onion and lemon		
Lettuce leaves		
Mayonnaise*	1 tablespoon	15 Gm.
Melon	1	60 Gm.
Skimmed milk	1 glass	200 Gm.
Dinner:		
Beef steak, broiled	3 oz.	90 Gm.
Asparagus	6 stalks	100 Gm.
with butter	6 teaspoons	10 Gm.
Lettuce salad:		
Lettuce	1% head	50 Gm.
Tomato	1 small	100 Gm.
Dressing	ad libitum	ad libitum
Pear	½ cup	120 Gm.
Skimmed milk	1 glass	200 Gm.

*Ingredients: 1 egg, 1 teaspoon salt, 1 teaspoon mustard, 2 cups liquid petrolatum, 2 tablespoons vinegar and ½ teaspoon paprika. to take I multivitamin capsule daily.

A more or less general program suggested for weight reduction is based upon the factor of 35 calories per kilogram of body weight being necessary for maintenance of the average moderately active person. The reduction diet then would be restricted to 15 or 20 calories per kilogram of the ideal weight. This should result

in a loss of 1 to 2 lbs. per week and not prevent the individual from working. If the patient is working for the ideal weight of 70 kilograms or 154 lbs. the daily dietary allowance would be 1000 to 1400 calories. Because protein has a high satiety value and specific dynamic action and is important to muscle building and tissue protection it should be taken in quantities of 1.0 to 1.5 Gm. per kilogram. Carbohydrate should be obtained from low-carbohydrate bulky fruits and vegetables and in quantities of 0.75 to 1.5 Gm. per Gm. of protein. Fat intake should be kept at a minimum (0,5 Gm. per Kg.) and should be limited chiefly to that in the eggs and meat given for their protein content. A typical diet of this nature made up of 1075 calories and containing 85 Gm. of protein, 35 Gm. of fat and 105 Gm. of carbohydrate is as follows: 2 glasses of skimmed milk or buttermilk, 3 slices of whole wheat bread, 1 egg, 2 servings of lean meat, 1 potato, 4 servings of 1 to 8 per cent vegetables (raw, cooked or in salads), 3 servings of raw or unsweetened canned fruit. This diet contains sufficient calcium, iron and ascorbic acid unless the individual adheres to it for a long time. In such cases vitamins A, D and B complex should also be prescribed. If the patient has a tendency to retain fluid the water and sodium chloride intake should be moderately re-

Table 4

Reduction Diet, One Thousand Calories Protein 75 Gm., Fat 42 Gm. and Carbohydrate 85 Gm.

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**	tenn		2.05 (1)

1.64			
Breakfast:	Househod Measure		
6 per cent fruit	1 serving	100	Gm.
Egg	1	50	Gm.
Bread	1 slice	30	Gm.
Butter	1 teaspoon	5	Gm.
Coffee, ad libitum,			
with milk	1 ez.	30	Gm.
Luncheon:			
Lean meat, fish, or	2 oz.		Gm.
cottage cheese	3 oz.		Gm.
3 per cent vegetables	1 serving	100	Gm.
6 per cent fruit or			
vegetable	1 serving		Gm.
Bread	1 slice	30	Gm.
Butter	1 teaspoon		Gm.
Whole milk	1 glass	200	Gm.
Dinner:			
Lean meat or fish	3 ez.	90	Gm.
3 per cent vegetable			
(1 raw, 1 cooked)	2 servings	200	Gm.
9 per cent fruit	1 serving	100	Gm.
Whole milk	1 glass	200	Gm.
Tea or coffee	ad libitum	ad	libitum

Sample Men

Sar	nple Menu	
Breakfast:	Household Measure	
Strawberries	1/2 cup	100 Gm.
Boiled egg	1	50 Gm.
Whole wheat toast	1 slice	30 Gm.
Butter	1 teaspoon	5 Gm.
Coffee with milk	1 oz.	30 Gm.
Luncheon:		
Cottage cheese	3 tablespoons	65 Gm.
Kale	1/2 cup	100 Gm.
Cabbage and celery	12	
salad	1/2 cup	100 Gm.
Mineral oil dressing	1 tablespoon	15 Gm.
Whole wheat bread	1 slice	30 Gm.
Butter	1 teaspoon	5 Gm.
Whole milk	1 glass	200 Gm.
Dinner:		
Roast beef (fat-	3 oz.	
trimmed)		90 Gm.
Broccoli	16 cup	100 Gm.
Cucumber and		
radishes	1/4 cup	50 Gm.
Pear	1	125 Gm.
Whole milk	1 glass	200 Gm.
Black coffee	ad libitum	ad libitum

Contraindications to Dieting

stricted.3

There are some contraindications to dieting in a few cases but generally they are not encountered. In those patients with tuberculous lesions or peptic ulcer the patient should not be placed on a diet until the process has slowed down in its activity. When this has occurred a diet of 1200 to 1500 calories may be prescribed. Some also feel that myocardial disease and advanced cardiovascular-renal disease are contraindications. However, others believe that some reduction in extreme obesity is of value in these conditions. Age is no factor in contraindications since reduction of weight in young and old is important to their health. Pregnancy is a definite contraindication for any drastic dieting but

Tαble 5
Fruits and Vegetables Classified According to Their Average Caloric Values per Hundred Grams

16 calories "3 per cents" Carbo- hydrate, 3 Gm. Protein, 1 Gm.	28 calories "6 per cents" Carbo- hydrate, 6 Gm. Protein, 1 Gm.	40 calories "9 per cents" Carbo- hydrate, 9 Gm. Protein, 1 Gm.	52 calories "12 per cents" Carbohy- drate, 12 Gm. Protein, 1 Gm.	64 calories "15 per cents" Carbohy- drate, 15 Gm. Protein, 1 Gm.	96 calories "18 per cents" Carbohy- drate, 18 Gm. Protein, 4 Gm.
Vegetables: Asparagus Bamboo shoots Beans, greene Beans, waxe Beans, greene Beans, waxe Beans aprouts Broccoli Cabbage, Chinese Cabbage, Chinese Cabbage, Chinese Callifower Celery Chard Chicory Cress, water Cucumbers Endive Escarole French endive Lettuce Mustard greens Radishes Radishes Radishes Radishes Radishes Radishes Radishes Sorrel Spinach Squash, summer Tomatoes Tomato Juice Turnip tops	Vegetables Carrots, canned Collards Dandelion greens Eggplant Rale Rohlrabi Leeks Okra Parsley Peppers Pumpkin Squash, winter Turnips Fruits Apples Blackberries Melons Strawberries	Vegetables Brussel sprouts Beets Carrots, fresh Onions, fresh Peas, canned Rutabagas Fruits Applesauce, canned unsweetened Apricots, water- packed Blueberries Gooseberries Grapefruit Grapefruit juice Peaches Pears Loganberries Limes Limes Lames	Vegetables Lima beans, green canned? Fruits Apricots, fresh Cherries, sour, fresh Oranges Orange juice Pineapple Plums Kumquats	Vegetables Parsnips Kidney beans, red canned† Peas, fresh† Fruits Apples Huckleberries Grapes Mangon Nectarines	Vegetables Corn, canned sweet Potatoes Fruits Prune juice Figs, fresh Grape juice Pomegranates Bananas

†Because the protein content of these foods is higher than 1 Gm. per cent, they should be omitted when weighed diets are prescribed or the additional calories must be taken into account.

Tαble 6

FAT CONTENT PER HUNDRED GRAMS OF VARIOUS FOODS

0.1 to 2 per cent	2 to 5 per cent	5 to 10 per cent	10 to 15 per cent
Fish Bass Carp Cod Croaker Finnan haddie, smoked Flounder, southern Haddock Whiting Perch Pike Porgy Red snapper Smelt Sturgeon Shellfish Clam Crab Crayfish Frog legs Lobster Mussels Oysters Scallops Shrimp Miscellaneous Cottage cheese Tripe	Fish Bluefish Halibut steak Mackerel, horse Chicken Light meat Dark meat Gizzard Liver Duck, wild Muscle Gizzard Turkey Light meat Liver Rabbit, wild Muscle Veal Kidney Liver Sweetbread Tongue Lamb Liver Kidney Beef Liver Pork Kidney Liver Pork Kidney Liver	Fish Butterfish Eel Herring, Atlantic Lake trout Salmon, canned Shad Duck, domestic Muscle Turkey Dark meat Rabbit, domestic Muscle Veal Loin Rib, lean Round, lean Rump, lean Lamb Leg, lean Beef Brains Chuck, lean Corned beef, very lean Dried beef Foreshank Hindshank Kidney Round, lean Venison, lean Goose, muscle Guinea hen Quail	Fish Halibut, smoked Herring, canned Mackerel, Atlantic Mackerel, Spanisl Salmon, Atlantic Lamb Chops Shoulder, lean Beef Neck, very lean Roast, lean Sirloin Tenderloin Tongue, lean Venison Side and hind quarter

Table 7

Day's Allowance of Food

	1,000 Calorie Diet	3,000 Calorie Diet		
Gm.	n meat, fish, fowl, dry cottage cheese, 150 (5 oz.), and 1 egg. Must be free from (no gravy).	Any meat, fish, fowl, cheese, 150 Gm. (5 oz.), and 1 egg. Cooked in any manner.		
2. Skir	m milk or buttermilk, 480 Gm. (1 pint).	Half milk and half 20% cream, 720 Gm. (3/4 quart). May be plain or flavored.		
3. Bree	ad or plain rolls, 60 Gm. (2-3 slices).	Bread, rolls, pancakes, hot breads, 120 Gm. (4-6 slices).		
4. Cere	ral, none.	Cereal, 15 Gm. dry (1/2 cup as served).		
lima	chy foods such as potato, beans (dried or i), corn, hominy, macaroni, noodles, rice, thetti, none.	Starchy foods (see 1,000 calorie diet), 200 Gm. (1 cup).		
	etables (except above), 400 Gm. (2 cups). ned, cooked, frozen or raw.	Vegetables, any, 300 Gm. (1½ cups). Canned, cooked, dried, frozen or raw.		
	ts (see list below), 3 servings including citrus fruit or juice.	Fruits, any. At least 100 Gm. (1/2 cup) citrus fruit or juice plus any other canned, cooked, dried, frozen or raw.		
atin	erts, none except saccharin-sweetened gel- dessert, rennet dessert or custard made skim milk.	Desserts, 200 Gm. (2 servings) of cake, cookies, ice cream, pie, pastry, pudding.		
9. Swee	ets, none except saccharin.	Sweets, at leas, 3 thsp. sugar, jam or jelly.		
	os, none except clear broth or soup made a vegetable or skim milk allowance.	Any thickened or cream soup, 100-200 Gm. ($\frac{1}{2}$ -1 cup.)		
11. Fat 15 Gm.	(butter, margarine, mayonnaise or oil), im. (1 level thsp.) and 20% cream, 30 (2 thsp.).	Fat (butter, margarine, mayonnaise or oil includ- ing that used in cooking), 75 Gm. (5 level thsp.), and 26% cream, 75 Gm. (½ cup) in addition to 360 Gm. in the milk.		
12. Misc lemo	ellaneous (black coffee, clear tea, herbs, n juice, salt, spices, vinegar), as desired	Miscellaneous (coffee, tea, carbonated beverages, herbs, salt, spices, vinegar), in moderation,		
	Servings of Fruit Allowe	ed on 1,000 Calorie Diet		
	Fresh	Water-Packed Canned		
	1/2 apple	1/2 cup apple sauce		
	1 apricot	4 halves apricots		
	½ banana, small	1 cup blackberries		
	1/2 cup blackberries 1/3 cup blueberries	1/2 cup blueberries cup cherries, red or white		
	1/2 cup cranberries	I cup cherries, red or white 1/2 cup cherries, black		
	1/2 cup currants	% cup fruit salad		
	½ grapefruit ½ cup grapefruit juice	1/2 cup grapefruit juice 1/4 cup Kadota figs		
	1/6 honeydew melon	% cup Kadota figs 1 cup loganberries		
	1/2 cup huckleberries	½ cup orange juice		
	1 lemon 2 limes	1 cup peaches 2 halves pear		
	1 orange, medium	2 ring* pineapple		
	½ cup orange juice	½ cup pineapple juice 2 plums		
	1 peach 1/2 pear	1 cup raspberries		
	2 rings pineapple	1 cup strawberries		
	1 plum 1/4 cup raspberries	1/2 cup white grapes		
	1 cup rhubarb			
	½ cup strawberries ¾ alice watermelon			
	74 stice watermeien			

Table 8

Example	of	1.000	Calorie	and	3.000	Calorie	Diets
Example	47.6	L.UTU	Canorie	48 11 61	3,000	Canning	Trecto

Foods Allowed	Sample Menu	Wt., Gm.	O Calorie Diet Approximate Measure (Volume)	3,00 Wt., Gm.	Me	Diet ximate asure lume)
		Breakfa	ast			
Fruit, citrus Cereal	Grapefruit Whole grain cereal	190	½ mediu	m 106 15	8.6 8.0	medius cup
Egg Bacon	Egg, soft cooked Bacon	50	1	50 15		strips
Bread	Whole wheat toast	29	1 slice	40	2	slices
Butter Beverage	Butter Coffee	5	1 tsp. 1 cup	14	1	square
Cream, 20% Sugar Jelly	Cream Sugar Jelly	30	2 thsp.	75 15 20	3/9	cup tbsp.
		Dinne	r .			
Soup	Cream of potato soup			100	54	спр
Meat or substitute Potato or	Roast beef	75	212 02.	60	2	ož.
substitute	Mashed potato, gravy New cabbage	100	11	100	1/2	cup
Vegetable Salad Salad dressing	Sliced tomato Mayonnaise	100 100	1/2 cup 1 mediu	m 75 15	1/2	cup large thap.
Fruit (list, table 7)	Sliced orange	100	1 mediu			
Dessert Skim milk	Vanilla ice cream Skim milk	240	1/2 pint	70		cup
Milk, ½ cream Bread	Milk, 1/2 cream Whole wheat bread	20	1 slice	240 40	3/2	pint slices
Butter	Butter	5	1 tsp.	14	2	square
		Suppe	r			
Soup	Cream of pea soup			100	16	cup
Meat or substitute Potato or	Cold sliced ham	75	21 c oz.			
substitute Vegetable	Baked potato, butter Green beans	160	16 cup	00 75		cup
Salad Fruit (list,	Celery and carrot sticks	100	5-6 sticks	60	3-4	sticks
table 7)	Water-packed pears	100	2 halves	100	97	
Dessert Skim milk	Chocolate pudding Skim milk	240	1/2 pint			cup
Milk, 1/2 cream	Bread	20	1 slice	240	162	pint slices
Butter Beverage	Butter Tea with lemon	5	1 tsp. 1 cup	14	2	square
	Approximat	e Compo	sition of Die	ts		
			1,000 Calorie	3,000 Calorie		
	Protein	Unit Gm.	Diet 70	Diet 90		
	Fat	Gm.	40	185		
	Carbohydrate Calories	Gm.	1.040	3,000		
	Calcium	mg.	850	1,280		
	Vitamin A	mg. LU.	6,100	11,300		
	Thiamine	mg.	1.4	1.8		
	Riboflavin Niacin	mg.	1.7	2.4		
	Ascorbic acid	mg.	180	145		

Table 9

Reduction Diet for Children (1,100 to 1,200 Calories) Protein 75 Gm., Fat 35 Gm., Carbohydrate 125 Gm.

Fruits	All cooked and raw fruits except banana, 3/2 cup or	ounces
Fruit juices	Tomato, orange, or grapefruit, 1 cup or 8 ounces	
Eggs	Boiled, poached, or scrambled egg without fat, 1	
Cheese	Any variety, 2 ounces	
Meats	Poultry, lamb, beef, liver, or fish, 3 to 4 ounces	
Vegetables	Spinach, lettuce, celery, tomatoes, string beans, cab chard, cauliflower, broccoli, onion, asparagus, ½ cus	bage. Brussels sprouts at each of two meal
Salads	Any of the above vegetables or fruit served with dressing, ½ cup at each of 2 meals	lemon and mineral o
Desserts	Fruit, gelatin, sherbets, skimmed milk puddings, 1/2 cu	p at one meal
Breads	Preferably whole wheat or rye, 1/2 slice at each meal;	Ry-krisp
Beverages	Skimmed milk, not over 1 pint daily; cocoa made wit charine to be used as sugar; ½ grain tablet equal	
	Sample Manu	
Breakfast	Dinner or Lunch Lunch	or Dinner

Breakfast	Dinner or Lunch	Lunch or Dinner

3 to 4 oz. lean meat or fish I cup orange juice 1/2 cup cooked spinach 1/2 cup orange and grapefruit Salad on leaf of lettuce 1 egg 1 glass skimmed milk 14 slice whole-wheat bread

Mineral oil mayonnaise
½ slice of bread
1 glass skimmed milk
Lemon sherbet

Cottage cheese on lettuce, 2 oz. Cottage cheese on lettuce, % cup asparagus salad % cup string beans 1/2 slice bread 1 glass skimmed milk 1/2 cup frosted raspberries

here, too, moderate dieting may be necessary. 2,14

Treatment of Obesity in Children

The treatment of obesity in children involves slightly different technics. One group has reported successful results with the dietary regimen shown in Table 9. It was found that in some cases the losses in weight were unusual. Vitamins A, B and D were given as supplements.56

Others have reported no success with any type of therapy but have accepted the fact that obesity tends to be corrected at puberty when the child recognizes the handicap caused by the condition and then cooperates in adhering to the diet.57 Children should be taught proper behavior in respect to their desires for food and then dieting will not be necessary.

Conclusion

Obesity is, in the majority of cases, due to overeating. Dieting, anorexigenic drugs and psychotherapy comprise the most important therapeutic procedures. Proper dieting and reduction of weight result in many surprising changes in the obese individual. Many ailments disappear and the patient once more adopts a normal outlook on life.

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The Traffic Holocaust

Traffic deaths dropped one per cent in 1948, reaching a total of 32,200 as compared with 32,500 in 1947, but injuries increased eight per cent, according to figures released by The Travelers Insurance Companies.

The personal injury total, 1,471,000, was an all-time high. The 1947 figure was 1,365,000.

America's Number One Killer

Hypertension and arteriosclerosis account for more deaths than cancer, tuberculosis, and infantile paralysis combined.

The mortality from these two causes is now 600,000 annually. With the rising age level, deaths may increase to 1,200,000 by 1960.

American Public Health Association

The Executive Board of the American Public Health Association announces that the 77th Annual Meeting of the Association and meetings of related organizations will take place in New York City, October 24-28. The Hotels Statler and New Yorker are joint headquarters.

Course in Gastrointestinal Surgery

The National Gastroenterological Association, in cooperation with the Postgraduate Division of Tufts College Medical School and the First and Second Surgical Services of the Boston City Hospital, announces a course in gastrointestinal surgery to be given at the Boston City Hospital, Boston, Mass., on October 27, 28, 29, 1949

For further information and enrollment write to the National Gastroenterological Association, Dept. GSJ, 1819 Broadway, New York 23, New York.

A Successful Method of Artificial Insemination Using a Modified Vaginal Speculum

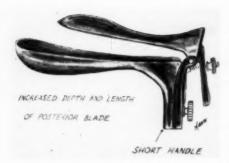
Robert S. Millen, M.D. Westbury, New York

The following case reports are described because they illustrate the value of a simple method of artificial insemination, using a modified vaginal speculum, when the infertility appears to be due to failure on the part of the spermatozoa to enter the cervical canal, as indicated by a postcoital examination. This may be caused by inferior cervical mucus, variations in the position of the cervical canal, or, as illustrated by one case, a decrease in the actual number of spermatozoa in the husband's specimen. These cases are identified by history numbers of their admissions to the North Country Community Hospital in Glen Cove, Long Island, where they were delivered, or where they had had some operative procedure in their past history.

TECHNIC—The patient is presented with a small glass jar, approximately two inches in diameter, and one to two inches in depth, which has been dry sterilized by autoclaving. She is instructed to have intercourse at home about 9 P.M. on the day selected, either on a theoretical basis, by endometrial biopsy, vaginal smear, or rectal temperature to indicate her ovulation time. Two days are usually selected each month for this procedure. The intercourse is interrupted in time for the husband to ejaculate into the sterile jar, the top is applied and care is taken to set it on the bed table, so as not to let it get near a radiator, or underneath a light which would produce unnecessary heat. At this point the patient telephones that she is ready and within five to fifteen minutes the procedure is carried out. This interval allows for a liquefaction of the specimen so as to make it more satisfactory. A special bivalve specimen, illustrated in Figure 1, is inserted after the patient has placed a kotex pad underneath

the crease of her buttocks, so that when she removes the speculum the excess seminal fluid can easily be caught upon it. The speculum is adjusted so that the posterior blade slides just underneath the cervix. The cervix is wiped clean. A Pommerenke glass cannula, having been previously dry sterilized by autoclaving, is then used to withdraw the seminal fluid from the jar and by very gentle pressure to inject this against the external os of the cervix. A steady stream of this material is noted to flow down into the posterior blade of the speculum which acts as a cup to catch it. At this point the speculum is inserted as far as possible to get the posterior blade to push on the mucous membrane of the vault and thus pull the cervix posterior and the external os deep in the pool of semen. She has been instructed how to turn the adjustment screw on the speculum, which is left in place, so that she can withdraw it at the end of forty-five minutes and then go off to sleep.

History #40408, a multipara, whose previous pregnancy was delivered in another city in 1941, presented herself on November 14, 1946 with a complaint of infertility. She had had a thorough workup over a period of a year and a half by her previous obstetrician, including a dilatation and curettage, insufflation, basal metabolism, etc. However, there has been no postcoital examination performed. This examination revealed only one to four sperms per high power field. An attempt was made to repeat the insufflation test after the next menstrual period, but difficulty was encountered in getting the cannula past the internal os. She was therefore hospitalized and under pentothal anesthesia the cervical canal was probed without diffi-



culty, once traction was applied to the cervix with a tenaculum. Insufflation was carried out satisfactorily.

(This hospital admission represents the identifying number of the case history.)

In view of the fact that there had been a considerable length of time since she started treatment in another city, only three months were let go by before artificial insemination was attempted, using the technic described, in an attempt to overcome the poor postcoital test. This was carried out on the twelfth and thirteenth days of a twenty-seven day cycle. Conception was proven by a positive Friedman test, taken three weeks after the missed period. Unfortunately, however, a miscarriage occurred about six weeks later.

History #32436 first presented herself in March, 1943 with a complaint of infertility, having had her only pregnancy delivered at term without difficulty seven years previously. A thorough investigation revealed only one abnormality, namely, an unsatisfactory postcoital test. Conception failed to occur over a period of two years, during which time the patient was taking thyroid, vitamins, etc., and on numerous occasions used a precoital douche of 5 per cent glucose in Ringers solution, titrated at 7.6 to 7.8 pH, during the fertile period. At the patient's request artificial insemination was carried out, using the husband's sperms in the technic described on the thirteenth and fifteenth days of a twentynine day cycle. Conception occurred and the patient was delivered at term.

History #39459 presented herself with a complaint of having had a bloody vaginal discharge for several days following a period during which she had had severe cramps. She mentioned the fact that her former desire to have children had been more or less given up as hopeless. Several years previously she had had an operation on the neck of her womb for the removal of a small piece of tissue." Examination with the speculum fully opened revealed that the cervical os could be located, but as the speculum was being collapsed and withdrawn a dimpled protrusion into the vaginal canal from the right was noted, lying partially across the cervical os. A bicornute uterus was suspected from the combined bimanual examination and direction of a uterine sound which went off markedly to each side, when inserted into the fundus.

A thorough sterility work-up revealed no other abnormalities, except the postcoital examination which revealed ten to fifteen sperms per high power field with only one of these having any activity and the mucus being rather scant. Because of this finding, the patient's age, and the feeling that possibly the dimpled protrusion from the right side of the vaginal wall might occasionally drop in against the cervical os and interfere with conception, it was decided to artificially inseminate with the husband's sperms, using the technic described. The first attempt to do this in May 1946 resulted in failure. A second attempt was carried out in August, using the eleventh and thirteenth days of a twenty-six day cycle. Conception occurred. The patient was delivered

History #37496, a white multipara, who had been trying to get pregnant for two years, was first seen in February 1944. In this work-up endometrial biopsy and insufflation test were normal, as was the basal metabolism, but the patient was put on thyroid after several months when her cycle increased to thirty-six days. Semen analysis by Doctor John MacLeod was reported as a low count with poor motility and in general a subnormal specimen. Considerable improvement was noted progressively in sev-

eral examinations over a period of about a year, while the patient was under thyroid, vitamin medication, etc., but the motility still remained below normal. During this time attempts to get a satisfactory postcoital examination were made by using Nutri-Sal precoital douches and several different vaginal pessaries to help tip the cervix back into the vault of the vagina, as it was angulated somewhat forward due to the corpus being in second degree retroversion. Because of failure to obtain a satisfactory postcoital specimen, in spite of these measures, insemination with the husband's specimen was carried out, as described, on the seventeenth and nineteenth days of her cycle, as the patient had been running a thirty-three day cycle for the previous few months. This was on April 1st and 3rd, 1945. Pregnancy ensued and the patient was delivered at term without difficulty. An interesting feature of this case was the complete absence of any basal body temperature changes indicative of ovulation during the cycle used for conception.

History #27074, whose first pregnancy had been delivered three years previously, had been using contraception for two years, but had failed to become pregnant during the third year. The husband was referred to a urologist, who reported his sperms at a very low count and instituted treatment, which resulted in but slight improvement. During this interval, insufflation and endometrial biopsy confirmed the normalcy of the female partner. One attempt at

artificial insemination early in 1944 was without success.

A pregnancy occurred in the spring of 1945 after the husband had returned from a year of war activities. However, this terminated in a spontaneous miscarriage. In the latter part of 1946 the urologist again reported a poor sperm count with cessation of all motility at the end of three hours. Artificial insemination was carried out, using the twelfth and fourteenth days of a twenty-eight day cycle. Conception occurred. She was delivered at term without difficulty.

Summary:

A simple technic is described for artificial insemination to overcome infertility, when the etiology seems to be an inability of the sperms to get into the cervical canal. This procedure makes use of a special bivalve speculum which has a short anterior and a long posterior lip, so that gentle but definite pressure can be exerted on the vaginal mucous membrane posterior to the cervix, thus pulling the cervical os into the pool of seminal fluid, which lies in the deepened posterior lip of the speculum and is thereby protected from the spermatocidal factors of the vaginal acidity. The speculum has the further advantage that the handle is short so that it can be used without difficulty while the patient is in bed. Of equal importance is the carrying out of this technic in the patient's home at bedtime to incorporate the highest physiological and psychological conduction of such a procedure.

MECHANOTHERAPY OF IMPOTENCE

—Continued from page 204

in the natural way, with orgasm and ejaculation in the sexual union of the creative marital act and in undisturbed privacy. Further, the procedure can be repeated at any time. (Treatment can be carried out by every General Practitioner.)

3. Apart from the artificiality of the

support, the act of procreation does not differ from the norm. Marital union is, in fact, complete and is also experienced psychosexually. The husband's self reliance and self-esteem are immensely fortified through his achievement. This contributes in successful cases to improvement or complete restoration of erection.

In conclusion it may be said that it is by no means difficult to acquire the tech-

-Concluded on page 228

The After Effects of Impotence

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The problem of impotence has always been one of great importance to clinicians (1-6) because of the effects on the patient, once he accepted it as a reality.

Over a period of twenty-one months a total of 218 new cases were studied in our clinics. From these cases fifty were found to be impotent. The ages of these patients ranged from 19 to 51 years. Cases which from careful study and history were diagnosed as male climacteric were excluded from this study. There were certain factors of interest noted in all these cases so classified:

- I. Of the 50 patients studied 24 sought medical aid when this disorder was apparent. The other 26 cases reported to the clinic for some malady other than impotence, so that this was discovered incidentally.
- II. Fourteen patients suspected or even believed that some kind of "sorcery" had been practiced upon them. In 10 cases this was ascribed to women with whom they were last associated, while in 4 cases it was attributed to their rivals. These individuals paid excessive fees to charlatans of one sort or another for advice or hoped-for relief before eventually seeing a physician.
- III. Three patients sought aid from physicians before going to charlataus. In each instance this was done on the advice of friends; but eventually they came to the clinic.
- IV. In eight cases, each sought aid from 6 or more physicians, 10 cases had visited 4 or more physicians and 22 cases had visited 3 or more physicians in their anxiety for immediate relief.

V. Only 20 cases talked freely of this condition. In the others this information was given with some hesitancy, despite the urgent need to have something done.

An analysis of the 50 cases here reported showed that following their own conviction that they were impotent, the following behaviour was observed:

1. Alcoholism	14
2. Hypochondriasis	10
3. Aggressive behavior to wife	7
4. Separation	6
5. Religious and ritualistic	4
6. Drug	2
7. Showering gifts on wife	2
8. Apathy and loss of self esteem	2
9. Gambling (race horses)	2
10. Suicidal attempt	1
A further study of this group is	

1. Alcoholism

presented.

This was resorted to in 11 cases because of its reputed aphrodisiac properties, only eventually for it to become a habit. In the other 3 cases the patients drank because they were depressed following each failure. The economic loss in all of these cases was enormous. In 4 cases public funds were necessary on periodic occasions to help the family.

2. Hypochondriasis

In this group the loss in working hours and the amount spent for medical care were considerable. These patients were usually impatient as their disorders appeared either slow to be diagnosed or slow to yield to therapy. The result was they went from physician to physician or to charlatans in quest of a cure. They attributed their condition to vague and indefinite bodily ills,

Funds for study from E. I. Kaufmann Research Fund,

which they readily accepted. They felt that once this particular ill was cured they would be well again. No sooner, however, was one condition cleared up to the satisfaction of the patient (with the persistence of impotence), than another would appear. Eventually they accepted impotence as the basis of their difficulties.

3. Aggressive behavior to wife

In this group the patients noted were more irritable after each failure. Two developed the desire to strangle their mates. This information was secured for the most part from their wives. Significant in this study was the silence of the wives to the failure of their husbands. In no instance was there a history that they had rebuked or complained, however great their reaction. This rather silent form of treatment seemed to have provoked this rather sadistic type of behavior on the part of the husbands.

4. Separation

Where separation ensued, in only one case, did the husband leave the home; in this instance, it was due to the sympathetic attitude of an older woman with whom he fell in love. The other five cases revealed that the patients, while deploring failure, were afraid to leave home lest the same manifest illness might appear again, and the embarrassment be repeated with someone else.

5. Religious-Ritualistic

Following this failure these individuals sought consolation in religion and ritualistic compulsive acts. Sex was debased and more or less tabooed. In one instance even articles in the daily papers referring to sexual matters angered him, and quotations to substantiate this reaction were readily cited from the Bible.

6. Drugs

"Reefers" were used by one patient, and another used both "reefers" and heroin. In the first instance "reefers" were used as an aphrodisiac. Later they produced such an exhilarating experience that the custom was continued. In the other instance "reefers" were used and when they were unobtainable heroin was used so that this patient became addicted and with even greater evidence of impotence. In each instance these patients stated that eventually there was a total lack of desire.

7. Showering gifts on wife

Because of persistent failure these patients expected to lose their wives. To protect their ego these individuals substituted object-libido for sexual libido. They felt unless they appeased their wives by lavishing gifts upon them and thus made their stay as pleasant as possible, that separation would expose their weakness.

8. Apathy and loss of self esteem

Loss of self esteem was observed in two cases. There was no desire to work, while sickness and life insurances were allowed to go unattended to. Feelings of unworthiness and self-accusation were noted, and marked degrees of introversion.

9. Gambling

This was resorted to in two cases. It seemed to have developed as a substitute response, so that these patients got definite vicarious pleasure. Money seemed no longer necessary for security but rather to satisfy this new urge.

10. Suicidal Attempt

In the only case of attempted suicide the patient felt he could not stand the humiliation of seeing some other succeed where he had failed. There was expressed the utter futility of ever recovering. During this period, the patient felt the love of his wife had been supplanted by pity for him. Life to him under such circumstances became unbearable.

Comment

This study has shown the reactions of patient after impotence was accepted by him. The effects not only on the patient himself but on others closely associated with him are also noted (1-6). Other authors have cited instances where impotence resulted in the annulment of the marriage vows (7-8). Unglehart (9) has pointed

out the political and economic relationship. It is believed that Queen Catherine II of Russia caused her husband, Tsar Peter II, to be banished and put to death in 1762 because of malformation of his genitals. Lake (12) believes every civilized man over 40 years of age (and many long before) experiences at some time, or under certain conditions, some degree of impotence whether this be partial or complete. It is in those cases where this disorder is accepted by the patient as incurable, however, that it gives emotional and psychic reactions. This view is best crystallized by Scott (13), who has stated that "Unquestionably the sexual instinct is the most powerful of appetites, and exerts a direct influence, beyond the bounds of ordinary belief, over the life history of every man and woman."

Summary

50 cases of impotence are here reported. Certain factors noted are here pointed out, namely:

- 1. Many patients attributed this condition to supernatural causes. As a result they sought aid from charlatans but eventually came to the physician.
- 2. Some traveled from physician to physician in quest of a cure for their vague bodily ills, with the hope that in some way inadvertently the nature of their

real ill might be determined, and the cure found.

- 3. Separation was not considered very strongly as a cure for impotence by them, being resorted to in only 6 cases (12%) of this small series. Strangely enough, in only one instance did the husband leave his wife.
- 4. While the largest number turned to alcoholism as a solution, equally significant is the fact that only one attempted to commit suicide.

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MECHANOTHERAPY OF IMPOTENCE

-Concluded from page 225

nique of the mechanotherapy of impotence. However, this therapy does not consist of merely providing the patient with a wellfitting C.T.A. and dismissing him with a few instructions about handling it. comprises much more: intensive psychological preparation of the patient and his partner; his thorough enlightenment about the causes of his complaint and about the healing process; re-education of his sexuality and, quite often, also instructions about the technique of intercourse and love-mak-

Mechanotherapy demands from the physician psychological and sexological experience, understanding adaptation to the situation of the individual case and the patient's and his partner's personalities, thoroughness, perseverance, a big dose of patience and enthusiastic devotion to the

31, Harley House, London, N.W. 2.

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The 146th Regular Meeting of the Associated Physicians of Long Island



The meeting was held at St. Catherine's Hospital in Brooklyn, on Saturday, January 29th, 1949. The morning session, from ten to twelve, consisted of a combined surgical-

medical-pathological conference; combined obstetric and pediatric conference; demonstrations of plastic surgery; demonstration of segmental spinal block; urological conference, an x-ray conference, pathological exhibits; and a conference on the oral treatment of pruritis ani.

These were followed by a delightful luncheon, at which the Association members were guests of St. Catherine's Hospital.

The scientific session began at 2 p.m., and consisted of the following papers:

 Congenital Heart Disease — Recent Advances in Diagnosis, by Martin A. Murphy; discussed by Drs. John L. Madden and Dwight Bonham.

 The Practical Application of the Rh Factor, by Leslie H. Tisdall; discussion was given by Drs. David E. Warden and Stanley C. Hall.

Diagnosis and Treatment of Pancreatitis, by Dr. John J. Black; discussion by Dr. Elbert T. Montgomery.

 Recent Advances in Pediatrics, by Dr. George Cunningham; discussion by Dr. Philip J. Lombard.

At 5 p.m. the business meeting was called to order by Dr. E. A. Griffin, the president. The minutes were read by the secretary, Dr. Charles G. Williamson, and accepted as read. The financial report was made by the treasurer, Dr. E. H. Griffin, and accepted as read. Dr. E. H. Griffin made a motion that the dues be raised from \$5 to \$6. This was seconded by Dr.

Charles A. Anderson, and passed by the body. There were no communications. Dr. Warren Titus and Dr. Caponegro gave the report of the Scientific Committee. Dr. Thomas B. Wood suggested a vote of thanks to Dr. Caponegro for the very excellent scientific program of the afternoon, and this was seconded by Dr. Carhart. Dr. S. C. Hall gave the report of the Membership Committee, and the following members were elected: Doctors Duncan Clark and George A. Graham of Brooklyn; Dr. Douglas C. Harrington of Huntington; Dr. William J. McLaughlin of Brooklyn; Dr. Joseph A. Gaetane of Forest Hills; Drs. William Scanlon and Welbourne F. Bronaugh of Brooklyn; Dr. Harvey Merk of Brooklyn; Dr. John M. Van der Linde of Forest Hills; Dr. Peter Denker of Manhasset; Dr. Pierre Salmon of Brooklyn; Dr. James C. Barnett of East Rockaway; Dr. Lindon L. Davis of Williston Park. These members will be elected on payment of their dues.

Dr. Butler had nothing to report for the legal committee. Dr. Napier read the list of the following members who died since the last meeting: Doctors Charles F. Durning, Judson P. Pendleton, Henry P. deForest, Philip J. Genthner, Horace Gledhill, Thomas Turino, Arthur C. Martin, Edwin H. Fiske, George H. Iler, Stanley B. Thomas, James M. Downey, W. Reynolds Shetterly, William C. Braislin. All the members of the organization rose during a minute of silent prayer. Dr. Merwarth, chairman of the Browning Prize Committee, reported his regrets that no prize could be awarded this year because no paper was of sufficiently good quality. He suggested that more papers be submitted. Dr. Ander-

-Concluded on page 246

EDITORIALS

The Pact Versus Political Medicine

The arms program which is necessary to implement the North Atlantic Pact is eliciting loud screams of protest from the very elements who constitute the proponents of compulsory sickness insurance.

Why?

Because their precious program is jeopardized by expenditure of the billions which they covet. We simply cannot afford both programs.

So here we have another measure of the fanaticism of the political-medicine advo-

cates.

It is interesting to note how accurately all the parties of the Left dovetail in aims and objectives; it is easy to predict the line they will follow in any given circumstance.



The nationalization of medicine, on the heels of socialization, would greatly augment the trend toward the all - powerful State. Ultimately an authoritarian State not essentially different from the Russian model

would be set up.

Of course, there are other factors making for the totalitarian State. Thus Senator O'Mahoney sees centralized governmental power as the answer to the struggle of the Government to resist control of the helm of State by monopolistic aggregations of economic power. These "great corporations which seek to govern the Government," being more intelligent than labor, do not favor the nationalization of medicine, which by strengthening the autocracy of the State would enable the Government to dominate monopoly capitalism.

Labor stupidly favors the socialization of



medicine. A State with too great power would dominate the unions—even liquidate their reason for being. This has always been the case under authoritarian dispensations. Socialized medicine would be only a step to nationalized medicine.

Between these terrific forces medicine

may yet be grievously torn.

The paradise of complete social security, including "free" medical care from the cradle to the grave, will need something more than a Hitler, a Mussolini, or a Stalin as Director of Planning. We nominate Lucifer, whose plan for the human race in Eden and thereafter has been so successful in the attainment of evil objectives.

The British Monstrosity Reports Progress

The British system of nationalized medicine is lumbering along with its lack of promised medical centers, lack of doctors to staff the hospitals (50,000 empty beds), excessive costliness, everworked and underpaid general practitioners, and no prospect of getting the 45,000 more nurses needed.

Making all allowances for the great strain under which the economy and medical resources of the country have been placed, we are beholding the creaking and altogether appalling creation of Britain's political Rube Goldbergs that one would expect to see; but the very inferiority of the quality of makeshift service can probably avert a breakdown indefinitely. Indeed, the tragedy of it is that there can be no turning back.

Meanwhile the people are being rather successfully conditioned by the politicians to accept an inherently inefficient mon-

strosity.

Drunken Sailors Outdone

Speaking on March 22 before the Controllers Institute of America, Walter Hoving, president of the Commerce and Industry Association of New York, warned against the nation's total tax bill; to exceed a limit of 25 per cent of the national income is to court economic disaster.

Since the tax load already exceeds 30 per cent of the national income it is obvious that the multi-billions proposed for compulsory sickness insurance (probably an 8 per cent pay-roll tax) would hamper further the production of new capital, which evil effect this type of extravagance particularly fosters.

Hoving pointed out that it is only during short periods of inflation or war that heavy tax loads can be safely supported.

And as things are currently, a business concern paying 50 per cent of its earnings in dividends must earn \$3.24 to pay \$1. This is because of the excessive 38 per cent corporate income tax. So we have investors shying away from equities and putting their money into bonds and mortgages.

The proverbial drunken sailors are outdone by the would-be compulsory sickness insurance spenders, even at the expense of National Security.

Punch's Reaction to Nationalized Medicine in Britain



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FROM THE

Office of the Secretary of Defense

Washington, D. C.

To the Editor:

A most critical professional manpower shortage is facing the Medical Departments of the Armed Forces. The urgency of the need for physicians and dentists can be judged from the fact that by July of this year the Armed Forces will have lost almost one-third of their present staff of physicians and dentists. The tours of duty of these professional men will expire and normal procurement measures can not fill the vast number of vacancies that will arise.

By the end of July we will be short about 1600 physicians and 1160 dentists. By next December this shortage will grow to 2200 physicians and 1400 dentists. This shortage means that the Armed Forces will not have enough professional men to give minimum medical service to the almost 1,700,000 men and women who are serving their country.

You and your publication have been asked many times for assistance in special drives and campaigns for the welfare of our country. You have at all times shown whole-hearted cooperation.

We have sought and received support in this campaign from the professional societies from the national to the community level. Deans of medical and dental schools and the heads of hospitals also have been asked to cooperate in this emergency.

The success of this procurement campaign will depend primarily upon public understanding and public support. The people of the United States must be made aware of the seriousness of the problem which faces us. If this shortage is allowed to develop, it could jeopardize our entire national defense program.

The Medical Departments of the Armed Forces and your Government ask your cooperation in averting a situation that could have serious effects on the security of this country. Through your editorial pages and news columns you can help us inform the people of this country of the vital needs of the Medical Departments of the Armed Forces. You can urge these young men who received their medical and dental educations during the war years, and who have given no service, to volunteer their services to their country now when the need is so great.

I am enclosing a fact sheet and general background information which outlines the program in its entirety.

It must be made clear that we are not asking for physicians and dentists from areas where a shortage already exists. We are only trying to replace the physicians and dentists who have completed their obligation and who will be relieved from duty with the Armed Forces and will return to civilian life to practice their professions.

Your cooperation in this campaign can be of inestimable value and will be greatly appreciated by the Medical Departments of the Armed Forces, the young men and women in our Armed Forces and the families of these young people.

Sincerely yours, JAMES FORRESTAL

Mr. Forrestal pointed out that this professional manpower shortage in the Armed Forces is so serious that legislation for a physician and dentist draft has already been prepared and is being held for possible use.

Mr. Forrestal announced also that Mr. Charles P. Cooper, his deputy for medical and allied professional matters, will conduct, through the Armed Forces Medical Advisory Committee, an active campaign for medical and dental personnel. The committee will also make an intensive study of the proper utilization of physicians and dentists, and of the workload in the

Armed Forces, to insure against waste of precious professional manpower, and, in so far as possible, that men serve in an assignment commensurate with their professional skills and abilities.

On the Armed Forces Medical Advisory Committee, in addition to the Surgeon General of the Army, the Surgeon General of the Navy, and the Air Surgeon, are 11 distinguished civilians.

They are:

Dr. Raymond B. Allen of Seattle, Washington

Dr. Francis J. Braceland of Rochester, Minnesota

Dr. Edward D. Church of Boston, Massachusetts

Dr. Michael DeBakey of Houston,

Dr. Paul R. Hawley of Chicago, Illinois

Dr. Daniel F. Lynch of Washington, D. C.

Dr. Richard L. Meiling of Columbus, Ohio

Dr. Maurice C. Pincoffs of Baltimore, Maryland

Dr. Howard A. Rusk of New York City

Dr. Walter H. Scherer of Houston, Texas

Dr. Paul Titus of Pittsburgh, Pennsylvania

A further statement made by Mr. Forrestal reveals that he has sent personal letters to the 8,000 physicians and dentists who were trained at government expense under the A.S.T.P. or the Navy V-12 programs.

In addition to professional organizations, Secretary Forrestal is asking for the cooperation of veteran, civic and patriotic groups to insure success for the campaign by translating the needs of the Armed Forces to the public, and to assist in making direct contact with individual physicians and dentists whom they know are affected by this appeal. Deans of medical and dental schools and heads of hospitals also are being asked to give their support to the program.

Mr. Forrestal said, "We have an obligation to the millions of persons concerned. These include the men and women in the Armed Forces themselves, and the fathers and mothers of these men and women who depend upon the pledge of this Government to take care of the medical and dental needs of those who serve their nation throughout the world."

A direct appeal is now being made to the 8,000 young physicians and dentists who were trained at government expense under the wartime Army Specialized Training Program and the Navy V-12 program, and who have given little or no service to the Armed Forces, to volunteer for active duty in one of the three Armed Services.

An appeal is also being directed to the 7,000 physicians and dentists who were deferred during the war to complete their medical or dental educations at their own expense, and who have not served in the Armed Forces, to volunteer for active duty.

This program is a joint undertaking of the three Services, the American Medical Association, the American Dental Association, and other allied professional groups to fill the critical professional manpower shortage which faces the Armed Forces. Local professional groups are being furnished the names of the physicians and dentists in their particular communities who received professional training at government expense, and are asked to contact these men for personal interviews to inform them regarding the critical needs of the Armed Forces. They are asked to make regular reports to the Secretary of Defense on the result of the interviews.

Secretary of Defense James Forrestal said that by the end of July of this year, the Armed Forces will have lost almost one-third of the present number of physicians and dentists now in service. This will result in a shortage of about 1600 physicians and 1160 dentists. If this condition is allowed to develop the number will have increased to 2200 physicians and 1400 dentists by December.

Normal procurement procedure for professional replacements can not hope to supply the requirements for the Armed Forces. For example, during the month of January, 1949, only 30 physicians and 20 dentists

CONTEMPORARY PROGRESS

PHYSICAL THERAPY

Refrigeration in Obstetric Cases

F. M. Allen (Western Journal of Surgery, Obstetrics and Gynecology, 56:548, Oct. 1948) suggests the use of an abdominal tourniquet with refrigeration of the legs and abdomen for the treatment of postpartum hemorrhage. Experiments on animals have shown that shock and other ill effects of an abdominal tourniquet are minimized by adequate refrigeration. For carrying out this plan of treatment, the patient, if not unconscious, should be deeply anesthetized, and should be picked up by the feet and legs and held vertically with the head down while the abdominal tourniquet is applied quickly, and then laid back on the table. This procedure permits all blood to flow toward the head and the intestines to fall toward the diaphragm. For the tourniquet, a large, very elastic pure rubber tube (one inch in diameter) should be applied in several superimposed turns (not side by side) around the abdomen just above the pelvic bones. An infusion of blood, plasma or salt solution may be given. A liberal supply of finely crushed ice should then be applied around the legs, abdomen and back to an inch or two above the tourniquet. If ice is not available the patient may be propped up in a bath tub of cold running water. For transportation to the hospital, the legs and lower abdomen may be wrapped in wet cloths with a few pieces of ice on top. The time of tourniquet application should be as short as possible, but "reasonably efficient refrigeration" provides time for transportation and operation for surgical hemostasis. After operation, the tourniquet is removed and the entire body temperature

raised to a little below normal. Another blood transfusion or infusion of plasma or salt solution may also be indicated. With this method the author is of the opinion that deaths from postpartum hemorrhage should be absolutely preventable. In obstetric shock, as in other types of shock, the application of heat is not indicated. Local refrigeration of injured limbs can be continued for days, but prolonged chilling of the entire body or of the viscera is not harmless, although it may be well tolerated for two or more hours. Evidence indicates, however, that in patients in shock body temperature may be reduced by two to four degrees with no discomfort or shivering, with mild sedation if neces-

COMMENT

This procedure is in line with the author's previous work on refrigeration. It is an emergency measure that may be used whilst awaiting surgical intervention and, with adequate help, should justify its employment, if the usual measures are of no avail.

Apropos of general refrigeration, in the experiment by Gerster et al., body temperature has been kept at below 90F. (in some cases from 80-85 F.) for several days, a total of 2856 hours, in 26 patients, without ill effect, following the methods of Temple Fay et al. In two cases, for several hours, rectal temperature registered 79.6F. Risks from pneumonia, nephritis or Raynaud's disease seemed not as great as might be expected, Recovery was usually uneventful. M.C.L.McG.

The Physical Therapy of Rheumatoid Arthritis

F. B. Moot (Annals of Western Medicine and Surgery, 2:422, Sept. 1948) dis-

cusses the importance of physical therapy in the treatment of rheumatoid arthritis. Although it is only a part of a complete treatment program, the author considers physical therapy of more value in rheumatoid arthritis than in other types of rheumatic diseases. Although bed rest is necessary in acute stages of rheumatoid arthritis, it should not be too long continued. While the patient is still in bed, as soon as acute joint manfestations subside, passive movement should be started; assisted active and

full active exercise should be begun as soon as possible, but carefully adjusted and graded for every patient. Postural and breathing exercises should also be started as bed exercises and later graduated to sitting and standing exercises. While the whole exercise program should be carried out under the direction of a physical therapist, the patient should be taught to perform as much of the program for himself as possible. Local application of heat by various

methods—hot fomentations, immersion in hot water, the infra-red lamp, or hot paraffin baths—is of definite value in rheumatoid arthritis. Hot parafin baths have been found to be of special value in the treatment of rheumatoid hands, wrists, feet and ankles; the patient can be instructed in the use of the paraffin bath at home. The general application of heat the author considers to be of more importance in rheumatoid arthritis than the local application of heat. It results in increase in the metabolic rate, dilation of the peripheral blood vessels, increase in the pulse rate

and in the pH of the blood; there is also a moderate leukocytosis with polymorphonuclears predominating. For the general application of heat the Hubbard tank may be used, the temperature of the water being gradually increased to 104 to 106 F., and the patient remaining in the bath till the body temperature reaches 101 F. The author more frequently employs fever therapy in a standard fever cabinet, giving five fever treatments at a temperature of 103 F. for three or four hours weekly. In most

cases this relieves pain and swelling in the joints and "definitely improves the patient's morale," that the rest of the treatment program may be begun immediate-The regular application of massage is also of value to improve the condition of muscles and skin; it should usually be preceded by some form of heat therapy. Another method of value is the local application by ion transfer of the v a sodilating drugs, histamine and acetyl-beta-

Malford W. Thewlis Medicine Wakefield, R. I.
Thomas M. Brennan Surgery Brooklyn, N. Y.
Victor Cox Pedersen
Harvey B. Matthews
Brooklyn, N. Y. Obstetrics-Gynecology L. Chester McHenry
Nose and Throat-Otology
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Mineola, N. Y. and Social Hygiene Henry E. Utter Pediatrics
Providence, R. I.
E. Jefferson Browder Neurosurgery Brooklyn, N. Y.

methyl choline.

COMMENT

The most important therapeutic measure is postural exercise. Good posture must be stressed, lying, sitting, standing, from the earliest moment, A firm mattress, preferably with an orthopoedic board, if indicated, and a small pillow for the head, are the first essentials. No pillow under the knees will prevent contractures. Watch for foot drop—a board or box at the foot of the bed may be needed, Splints may be needed for various members or an entire body casing like a spinal fracture bed to maintain good body mechanics.

Lying prone twice daily for an hour will help. Gentleness is the watchword in these cases—gentle heat, gentle massage, gentle exercise, the active triad superimposed on needed rest

in all states.

The full or partial bath is the measure least likely to cause trouble when home care is given. By gradually raising the temperature of the water to 106°, a body temperature of 102-103 F. may be induced in 12-15 minutes. General radiant heating in a light cabinet followed by tonic doses of ultraviolet radiation may be alternated with the hydrotherapy. Breathing deeply every hour on the hour and passive motions, when permissible, will soon have the patient ready for active exercise.

M.C.L.McG.

Development of Ultraviolet Blood Irradiation

E. K. Knott (American Journal of Surgery, 76:165, Aug. 1948) presents a review of the history of ultraviolet blood irradiation. Since the Knott Hemo-Irradiator was perfected, ultraviolet blood irradiation has been more widely used elinically. This Hemo-Irradiator consists of a water-cooled, ultraviolet generator and a transfusion pump and exposure device that controls the rate of flow and the exposure of the blood to the ultra-violet ray; a revolving shutter provides uniform exposure of all parts of the blood. Ultraviolet blood irradiation was first used for the treatment of blood stream infections, on the basis of results of animal experiments; but has since been used in other conditions. A review of the literature indicates that approximately 45,000 treatments have been given. On the basis of clinical experience and further research, the conclusion has been reached that the favorable clinical results of ultraviolet blood irradiation are due to various biochemical and physiological effects, including an increase in blood oxygen absorption, an increase in phagocytic action, setting up of an efficient detoxifying mechanism, and an increased blood flow through the capillaries. The results so far obtained are considered by the author such as to warrant further investigation of "the modus operandi of the procedure," as well as clinical studies of its therapeutic value.

COMMENT

This method of Ultraviolet Blood Irradiation has enthusiastic supporters and, on the other hand, it is not accepted by some who feel its claims have not all been substantiated. Many investigators over the country must study the problem and publish results before passing judgment.

M.C.L.McG.

The Practical Application of Local Heat

1. D. Currence (New York State Journal of Medicine, 48:2044, Sept. 15, 1948) reports a study of the effects of the application of local heat by various methods. In 18 normal subjects, one arm was exposed to heat by the following methods: Immersion of the arm to the midpoint of the humerus in a whirlpool tank, in which the temperature of the water was raised from 106 to 110 F. in the first five minutes and maintained at 110 F. for fifteen minutes; exposure of the arm for twenty minutes to infra-red radiation of maximum tolerated intensity; short-wave diathermy; and induction coil diathermy. Oral and axillary temperatures were recorded at the beginning and at the end of treatment. The rise in oral temperature was greatest with the whirlpool bath treatment; the rise in the axillary temperature on the untreated side tended to parallel the oral temperature; the rise in the axillary temperature on the treated side was definitely greater than the oral temperature This may be considered to indicate an increase in temperature in the vascular bed of the treated extremity. Local hydrotherapy, in addition to being the most effective form of local heat for raising the local and systemic temperature, has other advantages as a form of local heat therapy of the extremities. It causes no untoward subjective or objective reactions; its relaxing effects relieve painful muscle spasm and render muscles "more amenable" to massage and exercise; and it has a beneficial psychological effect. In addition, its cost is low, it is readily available, and no special technical skill is required for its administration.

COMMENT

Water, the universal solvent, has justified
MEDICAL TIMES, MAY, 1949

its clinical use throughout the ages in many lesions. By immersing the arm in the warm water of the whirlpool, warmth, hydromassage and underwater exercises were instituted, since it is difficult to refrain from movement in swirling water. The temperature of the body as a whole is raised when local heat is maintained for sufficient time, first warming up the other arm, then the lower extremities and then the general periphery. A sense of well-being follows and the patient is always happy to return for further treatment.

M.C.L.M.G.

Passive Muscular Exercise

M. A. Levine (Archives of Physical Medicine, 29:642, Oct. 1948) describes an apparatus employed for passive muscle stretching exercises after prolonged immobilization. It consists of a modified ratchet-controlled windlass, with which the exact force of the pull is checked on a scale placed between the patient and the table. In an injured extremity after prolonged immobilization, a number of adhesions will develop, which can be stretched or ruptured; even in minor injuries there is loss of flexibility in the areolar tissues that results in stiffness of the joints; this type of stiffness is rapidly relieved by passive stretching exercises with removal of edema. These exercises stimulate vasodilation and increase the flow of blood. The apparatus described has been used in the treatment of postbursal or tendonitis adhesions around the shoulder; in stiffness of the elbow joint after prolonged immobilization; in flexion or extensive contractures of the knee joint; in flexion of the ankle joint; and in stiffness of the neck due to either arthritis or a partial traumatic subluxation; in the latter group of cases a specially designed head halter is employed. Pretreatment with heat, diathermy or infra-red lamp is employed with this method of passive muscular exercise, as indicated. In some cases, also, the patient assists by active movement of certain muscles.

COMMENT

An ingenious device such as this which the patient himself can use is excellent to keep him working and progressing. It is, of course, best to institute movement at the earliest possible moment, to prevent evil consequences. Exercising actively every muscle except the injured ones will start the good work, "Muscle which is contracting and relaxing setting," the muscles within a cast after a fracture, is one of the best procedures and active exercise of the muscles above and below the site of injury will soon give good results and prevent the adhesions so dreaded and the loss of time, employment and money that later entail costly rehabilitation, Early movement is as essential today as when taught by Hippocrates and more recently by those of us who early sensed the wisdom of preventive measures, Physical measures such as the gentle heat of wet compresses, the whirlpool or ordinary baths with underwater exercises will help greatly, when they can be applied; otherwise radiant light or high frequency heating will be of service. M.C.L.McG.

GYNECOLOGY

A Clinical Evaluation of Dienestrol in the Climacteric

J. C. Viviano (American Journal of Obstetrics and Gynecology, 56:921, Nov. 1948) reports the treatment of 31 patients with menopausal symptoms with dienestrol. These patients attended a special clinic, where a careful gynecological examination was made, and vaginal smears taken. The beginning dose was 0.1 mg. daily; patients were seen weekly and the dose increased usually by 0.1 mg. a day each time the patient was seen until symptoms reached a constant minimal level. Vaginal

smears were also taken weekly. Of the group of 31 patients, 84 per cent reported satisfactory relief of symptoms, and 16 per cent partial relief. No patient reported dienestrol to be entirely ineffective. The dosage ranged from 0.2 mg. to 2.0 mg. daily; the majority received 0.4 to 1.5 mg. daily. As a rule the dosage employed paralleled the severity of the symptoms. Thirty of the 31 patients showed a full estrogen effect in the vaginal smear, which in most cases occurred at the same time as or shortly after the maximum relief of symptoms. Only one patient complained

of nausea and vomiting while taking dienestrol; this occurred on a dosage of 0.5 mg, daily; after stopping treatment for a week, it was begun again with a dosage of 0.3 mg. daily without further signs of toxicity. Only 2 patients had withdrawal bleeding; one of these was a castrate twenty-seven years of age, who had shown withdrawal bleeding with other types of estrogen therapy. By giving dienestrol in intermittent courses of twenty days with ten-day intervals, withdrawal bleeding simulating normal menstrual periods was obtained. The other patient was sixty-three years of age and showed slight bleeding (spotting) for a day after voluntarily discontinuing treatment for a

COMMENT

Judging from the author's clinical evaluation dienestrol is "just another" estrogenic hormone, We have had no experience with this particular hormone but apparently it is potent (even when taken by mouth) and has very few side effects, Given a potent preparation that can be given by mouth there is little choice in the multitude of estrogenic hormones available. H.B.M.

Vaginal Cytology of Postmenopausal Women

J. R. Kernodle and W. K. Cuyler (Southern Medical Journal, 41:861, 869, Oct. 1948) report a study of the cytology of 415 sets of vaginal and cervical smears from postmenopausal women; 70 of these smears came from women with malignant lesions of the genital organs. These smears were classified according to Papanicolaou and Traut with several subtypes created by the authors to define the cytology more acurately. One of the subtypes, AMA (atrophic menopause, acidophilic), has been the subject of a special study. In the group of 257 patients without malignant lesions, the average age was 53.2 years; the menopause was spontaneous in 207 cases, and surgical in 50 cases; 68 patients had had postmenopausal bleeding. Type II smears (atypical epithelial cells, but not malignant) were found in 80.5 per cent of the patients.

Repeat smears were made in some cases (a total of 345 smears); in these smears, subtype R (regressive) was most frequently found. Trichomonas vaginalis was associated most frequently with subtype R. Chronic cervicitis was present in more than one-third of the patients and was associated most frequently with subtypes R and AMA. In the malignant group, subtype R was associated most frequently with malignancy, and subtype AMA was least frequently found. special study of subtype AMA was made in the vaginal smears of 68 post-menopausal women. These smears show various types of basal cells, including normal basal cells, but all are acidophilic, most of the cells are smaller than normal, and some show various stages of necrocytosis. These smears were not frequently associated with malignancy. They represent an "ac-centuated degeneration," which is probably secondary to an endogenous hormonal imbalance; although sometimes associated with infection, infection was not present in the majority of cases showing this type of smear.

COMMENT

Vaginal cytology in postmenopausal women is destined to become a routine procedure. Indeed, it may be said to be "just that" right now. Any such patient coming to the office for a general check-up has not had a complete examination unless vaginal cytology is included. The authors have classified smears according to Papanicolaou and Trout and have created, for the sake of accuracy, several subtypes. At least two of these subtypes have received special study. One could be definitely said to be non-malignant, whereas the other was just as surely malignant. If you are interested in vaginal cytology read this article—yes, study it, Remember! early diagnosis is still the only hope for a positive cure of cancer, H.B.M.

The Treatment of Uterine Fibroids

F. L. Payne (Surgical Clinics of North America, Dec. 1948:1455) states that since uterine fibroids may give rise to no symptoms and have "a very low potential" for malignant degeneration, a diagnosis of uterine myoma is not necessarily an indication for active treatment. If a diagnosis of a fibroid tumor is definitely established

in a woman approaching the menopause, the patient is kept under observation without treatment as long as there are no symptoms and the tumor does not exceed the size of a three months' pregnancy. The same is true of a woman past the menopause, if the tumor is small and there are no symptoms; such women should be seen at least every six months, and treatment instituted if pain or bleeding develops. Some younger women with very small fibroids may also be kept under observation if they desire to have a child prior to surgical treatment. In some patients approaching the menopause, who have a small uterine fibroid, with menorrhagia the only symptom, androgen therapy is of value to control the bleeding; androgen therapy must be used with care in order to avoid untoward reactions. It may also be used occasionally in younger women with small fibroids who wish to defer operation for a time. Radium has been used in the treatment of uterine fibroids in the author's clinic since 1912; and has been found to be indicated in about 20 per cent of cases. It is used chiefly in women approaching the menopause, who have relatively small uterine fibroids with abnormal bleeding; after a diagnostic curettage an intrauterine application of a menopausal dose of radium is given. It is also employed occasionally in younger women with abnormal bleeding and small uterine fibroids; in some of these cases operation can be deferred, and in others, the abnormal bleeding is controlled without operation. X-ray therapy may be used for the control of bleeding when radium or immediate operation is contraindicated; in some cases marked regression of the tumor results. Myomectomy is indicated in about 10 to 15 per cent of cases of uterine fibroids, chiefly in young women in the childbearing period. Hysterectomy is the operation of choice in most cases of uterine fibroids. Vaginal hysterectomy is done only when the uterus is slightly enlarged and there is no adnexal disease. Abdominal hysterectomy is usually the method of choice; the author does not perform total hysterectomy routinely, but prefers it to supravaginal hysterectomy if

the general condition of the patient permits and benign cervical disease is present. Any healthy ovarian tissue is conserved.

COMMENT

We have taught and practiced for many years that "all fibroids need to be watched but not all fibroids need to be treated." We have "watched" fibroids that gave no clinical symptoms and did not suddenly change in size, consistency or sensitivity (5-10 years or longer) before instituting active treatment. Of course, the size and multiplicity of fibroids are always important. We can see no harm in such management and in not a few cases great good is accomplished by preserving the childbearing (also the menstrual) function as long as it is feasible to do so, As the author states, fibroids have "a very low potential" for malignant changes and if under constant continuous observation (pelvic examination) every 3-6 months, more often if indicated) there is very little risk from this angle of the problem, We can agree 100 per cent with the plan of active treatment that the author advocates, It is conservative, without too much risk to the patient, and it is reasonable, particularly if the patient is in the childbearing age and is married or expects to get married. It requires more "guts" to be intelligently conservative than it does to be immediately radical.

Cervical Obturation with Inflatable Cannula in Uterotubal Insufflation and Hysterosalpingography

I. C. Rubin and Ernest Myller (American Journal of Obstetrics and Gynecology, 56:1077, Dec. 1948) describe a cannula with an inflatable rubber bulb used for obturation of the cervical canal during uterotubal insufflation or hysterosalpingography. This instrument can be inserted into any cervical canal that admits a uterine sound. The rubber bulb can be inflated with an aqueous contrast medium, so that the relation of the bulb to the cervical canal can be demonstrated. The advantages of this type of cannula are: It provides airtight closure of the cervical canal, which is essential for either uterotubal insufflation or hysterosalpingography; its application is painless and it causes no trauma; it maintains the normal anatomical position of the uterus. Another advantage of this cannula is that the pressure

within the rubber bulb determines the maximum pressure that can be used for tubal insufflation or hysterosalpingography, for if the pressure used in either of these procedures exceeds that in the rubber bulb, there is prompt escape of the gas or the opaque medium from the cervix. Thus the rubber bulb of the cannula acts as "a desirable safety valve" which prevents undue increase of pressure within the uterus.

COMMENT

Everybody who has ever done the Rubin

test for patency of the fallopian tubes or hysterosalpingography knows that cervical obturation is of major importance. Regurgitation of CO₂ gas or oil leads to failure of these tests. The authors have devised a cannula with an inflatable bulb which can be inflated after passage through the cervical canal into the uterine cavity and by downward traction affords an affective means of plugging the internal cervical os, It works, We have had no personal experience but have seen Dr. Rubin demonstrate this cannula and it certainly has every advantage over all other methods of cervical obturation that we know about, If you perform the Rubin test get one of these cannulas. You will never regret it.

OBSTETRICS

Rh Sensitization in a Primipara Caused by Intramuscular Injection of Human Serum

I. Thornton Wallace and associates (American Journal of Obstetrics and Gynecology, 56:1163, Dec. 1948) report a case in which an Rh-negative woman in her first pregnancy showed Rh antibodies in the serum from the seventh week of pregnancy, which suddenly rose to a high titer in the thirty-second week. The husband was Rh-positive, and presumably heterozygous for the Rh factor. In this case there was no history of blood transfusions or injections of whole blood at any time in the patient's life, but there was a history of intramuscular injections of pooled adult serum as a prophylactic measure against poliomyelitis when the patient was eight years of age. At the time when the Rh antibody titer rose suddenly, a cesarean section was done in the hope of preventing severe erythroblastosis fetalis in the infant. Although an exchange transfusion was begun shortly after birth, the infant died on the second day; autopsy showed the typical pathological changes of erythroblastosis fetalis. The mother made a good recovery, but experience in similar cases indicates that it is doubtful if the Rh antibody in her serum will fall sufficiently to enable her to have a viable Rh-positive infant. As the husband is heterozygous, there is a possibility of an

Rh-negative infant which would not be erythroblastotic. It is now generally recognized that transfusions or even intramuscular injections of Rh-positive blood in Rh-negative individuals cause Rh sensitization more frequently than pregnancy with Rh-positive fetuses. This case shows that the injection of serum or plasma into Rh-negative women may also cause Rh sensitization, and that careful inquiry should be made in regard to such injections in taking the obstetric histories of Rh-negative women.

COMMENT

The authors report a case of Rh sensitization in a primipara caused by the intramuscular injection of human serum years previously. This case report, among other things, brings out three points that should always be kept in mind by the accoucheur, viz.: (1) that cesarean section performed some weeks before term may not keep the baby from dying of erythroblastosis: (2) that an exchange transfusion does not always save an erythroblastotic baby; and (3) that the mere injection of serum or plasma into Rh-negative women may cause Rh sensitization and that a careful inquiry into the past history regarding injections and/or transfusions should always be undertaken. Take warning and "save face" when handling Rh-negative women, H.B.M.

The Treatment of Eclampsia by Means of Regional Nerve Block

F. E. Whitacre and associates (Southern Medical Journal, 41:920, Oct. 1948) re-

port that they have used regional nerve block in the treatment of their most severe cases of eclampsia with good results. Restlessness is controlled with the sedative drugs commonly used; and hypertonic intravenous glucose is given, in addition to the regional nerve block. In the typical case reported, 8 cc. of "metycaine" in 1.5 per cent solution was first introduced into the sacral canal; as this produced no evidence of spinal anesthesia, an initial dose of 22 cc. of the "metycaine" solution was given and a segmental level of cutaneous anesthesia was maintained between thoracic 8 and 10, by giving 20 cc. of the "metycaine" solution every forty-five minutes. The blood pressure fell gradually. regional nerve block was maintained and the blood pressure controlled for thirtysix hours, during which time a few uterine contractions occurred. As it became increasingly difficult to maintain the regional nerve block, labor was induced by artificial rupture of the membranes, and a satisfactory nerve block to control hypertension and to relieve the pain of labor was maintained by introducing the "metycaine" solution into the subarachnoid space, above the third lumbar interspace, in a dosage of 1 to 2 cc. every hour. The nerve block was continued for twenty-four hours after delivery, and there was no rise in blood pressure. Both the mother and her infant were discharged in good condition. Recently, in cases in which regional nerve block has been used to control blood pressure and increase the urine volume, intravenous injection of mannitol in distilled water has been employed every four hours, in addition to 5 to 10 per cent glucose solution, as necessary to produce effective diuresis and dehydration.

COMMENT

We, of course, have no specific treatment for the toxemias of pregnancy, including eclampsia, Therefore any adjunct to the commonly employed treatment of eclampsia is acceptable. The one case reportd by the authors naturally does not establish the trustworthiness of regional nerve block, On the other hand, the basic principles involved are sound and, under proper auspices, this method should prove of very great value. We have

not personally employed the method but can see no reason for not using regional nerve block if the occasion arises. Go ahead and try it! Be sure you know the technic or, better still, have a qualified anesthetist perform the block.

H.B.M.

Decidual Bleeding in Pregnancy

H. A. Power (American Journal of Obstetrics and Gynecology, 56:743, Oct. 1948) reports 13 cases in which vaginal bleeding occurred in the first four and one-half to five months of pregnancy and was not due to premature separation or low implantation of the placenta. The bleeding varied in amount, and in 4 cases was accompanied by cramps; all of these 4 patients aborted four to six weeks after the onset of symptoms, but in one instance the child was viable (seven months) and survived. In the other 9 cases the bleeding ceased and the pregnancy progressed to term or near term and all the infants survived. One of the patients was fully ambulatory, 5 were on bed rest, and 7 were kept in bed and given estrogen and progesterone therapy. In all cases, areas of decidual degeneration were found after delivery, the degeneration being most extensive in those cases in which pregnancy terminated early. No evidence of subplacental hematoma or of gross pathological changes in the placenta was found in any case. In one case there was an apparent cervical polyp, which was found to consist of degenerated decidua. These findings indicate that bleeding in early pregnancy may result from degenerating decidual tissue; in such cases, the bleeding gradually ceases, as a rule, and pregnancy progresses normally under conservative treatment; the value of endocrine therapy was not clearly demonstrated in this series. The final diagnosis depends upon examination of any tissue passed and inspection of the placenta and membranes following delivery.

COMMENT

Decidual bleeding in pregnancy is a real pathological entity. Clinically the diagnosis is difficult to make, Microscopically it is easy, Not infrequently a diagnosis of threatened or even inevitable abortion is made and the uterus is curetted, thus removing a perfectly good pregnancy. Unless the bleeding has been or is now considerable and upon pelvic examination a diagnosis of inevitable abortion can be made, curettage should not be done until further evidence demonstrates the need, Be careful in handling this type of case, particularly where a pregnancy is intensely desired—as in an elderly primipara or sterility case or where death has taken an only child.

H.B.M.

Diethylstilbestrol in the Treatment of Idiopathic Repeated Abortion

Bernard Lapan (New York State Journal of Medicine, 48:2612, Dec. 1, 1948) reports 4 cases of repeated abortion in which diethylstilbestrol was successfully used in preventing abortion. These 4 patients represent a group in which this treatment has been successful where the previous percentage of live births was only 20 per cent. In the cases in which diethylstilbestrol was used, no organic causative factor could be found. A Friedman test for pregnancy was done in all cases to confirm the diagnosis of pregnancy, and diethylstilbestrol treatment was begun as soon as the diagnosis was established, usually at the fourth week. The beginning dosage was 5 mg. daily, and this was increased over a period of one to four months to 25 mg. daily; in one case, to 50 mg. daily. If cramps or bleeding occurred, indicating a threatened abortion. the dosage of diethylstilbestrol was increased to at least 20 mg. daily, even if early in pregnancy. Thyroid had previously been given in all the 4 cases reported and progesterone in 2 cases, without effect, but were also used with the diethylystilbestrol. In these 4 cases the pregnancy terminated before termo-sixteen days to eight weeks-but the infants were viable and survived. No delay in lactation was noted, although in some instances diethylstilbestrol was continued until the day of delivery; there was also no increase in postpartum bleeding and the placenta was normal on gross examination. The author has used diethylstilbestrol in "the ordinary case" of threatened abortion without result. He is of the opinion it is indicated only in "the true habitual

aborter" with recurrent endocrine abnormalities.

COMMENT

The use of diethylstilbestrol in the treatment of repeated abortion is not "news" nor has it been proven to be always efficacious. Dr. Lapan merely makes the statement that diethylstilbestrol is indicated only in "the true habitual aborter"—upon what grounds? The Smiths, whose research work is unimpeachable, have not come to any such conclusion, All right; use diethylstilbestrol in your repeated abortions; it may work—any one of several female hormones may do the same. It can do no harm. Yes, begin immediately a diagnosis of pregnancy is made, 14-28 days after conception. We find that in these "repeaters" psychotherapy is a great help and, as a matter of fact, we sometimes feel it does more good than "any of the hormones."

A Chemical Test for Pregnancy

W. A. Ricketts, R. M. Carson and R. R. Saeks (American Journal of Obstetrics and Gynecology, 56:955 Nov. 1948) describe a chemical test for pregnancy based on the established findings that during normal pregnancy histidine is excreted in the urine in demonstrable amounts, while in non-pregnant normal persons it is converted by the liver into histamine. This test was devised by two of the authors, Carson and Saeks, and has been used in collaboration with the senior author in over 400 cases. The specimen of the urine for the test should be taken early in the morning or several hours after a meal rich in protein and then only when the patient has voided urine after such a meal before the specimen is taken. Dilution of the urine is done so that small amounts of histidine will not be indicated by the test; the degree of dilution depends upon the specific gravity and pH; it has been found that an alkaline urine should be diluted with water to a specific gravity of 1.009 and an acid urine to a specific gravity of 1.005. A 5 cc. specimen of the diluted urine is used for the test; phosphates are precipitated by barium chloride (10 per cent solution); nitrites are oxidized with 0.1 N potassium permanganate reagent; solids are removed by filtration; Knoop's method is used for the detection of histidine. The test is simple and suitable for office use; one or more tests can be made in twenty to thirty minutes. In 268 cases in which the diagnosis of pregnancy was established clinically, the test gave correctly positive results in 95.1 per cent; in 163 cases in which the patient was not pregnant, the test was correctly negative in 92.6 per cent. Not all the urine specimens were adequately controlled as to time of collection in relation to meals. While certain pathological conditions may interfere with the accuracy of the test, the false reactions may serve as a guide to further study of the patient in relation to possible endocrine or other

disturbances. The test was found to be sufficiently accurate to justify its use "particularly as an office procedure."

COMMENT

Pregnancy tests continue to multiply, The urgent need for the early diagnosis of pregnancy continues to be important for certain patients. The doctor should be in a position to render this service. Granting all these statements to be true, then another "sure" test for pregnancy should be welcomed. The authors give the details of such a chemical test, It is simple, 95.1 percent accurate and can be done in the physician's office. Read the article; familiarize yourself with the technique and then be prepared to make a diagnosis of early pregnancy—the patient may be an O.W.; "time" is important or so she thinks. H.B.M.

OPHTHALMOLOGY

Corneal Transplantation: Results

W. C. Owens and associates representing hospitals in Baltimore, New York, Philadelphia and Boston (American Journal of Ophthalmology, 31:1394, December 1948) report the results of 417 corneal transplant operations. In the entire series the corneal graft remained clear in 36.5 per cent. The percentage of clear corneal grafts varied widely according to the cause of the corneal opacity. The best results were obtained in cases of keratoconus, with 65.2 per cent clear grafts; in cases of hereditary dystrophy, clear grafts were obtained in 58.8 per cent; in cases of interstitial keratitis, in 49 per cent; and in nonspecific inflammatory scars in 46.9 per cent. Results were poor in cases of active keratitis or corneal ulcer, in scars from chemical burns, traumatic lesions, gonococcal ulcers, and Fuchs' dystrophy. The degree of vascularization of the cornea influenced the result of corneal transplantation; in cases with no corneal vascularization, a clear graft was obtained in 50.5 per cent; in cases with moderate vascularization in 25.4 per cent; and in cases with extensive vascularization in 10.8 per cent. The size of the corneal opacity also affected the prognosis; results were best in cases with no corneal opacity or only a central opacity (50 to 52.8 per cent clear grafts). The presence of anterior synechias complicated the operation of corneal transplantation and indicated an unfavorable prognosis. In 79 cases in which the prognosis was considered to be very favorable, clear grafts were obtained in 68.3 per cent; this group included cases of keratoconus, cases with only a central corneal opacity, and cases of mild interstitial keratitis. In 229 cases with a preoperative vision of 20/200 or less, vision was 20/100 or better after operation in 36.2 per cent. In a group of 58 cases with a preoperative vision of 20/200 or less, selected as having a most favorable prognosis, improvement in vision to 20/100 or better was obtained in 55.2 per cent. The visual results obtained by corneal transplantation in cases with a preoperative vision of 20/100 or better not warrant the risk of the operation."

COMMENT

It is to be remembered that these cases were helpless before the operation of corneal transplant was devised. It was only a few years ago when this type of operation was performed in but two or three hospitals in the country. Now it is done in many large centers throughout the country. This is the first report on a large number of cases and shows

that the operation is standardized and rules for selecting cases established. Despite the publicity by various non-medical groups, sound advice is given the public so the glamour and overenthusiastic advertising can be laid aside. Newspaper and magazine writers never can get over the idea that everything they write about must hit the public right between the eyes when sober and conservative discussion would serve better.

R.L.

The Etiology, Symptomatology and Treatment of Juvenile Glaucoma

O. H. Ellis (American Journal of Ophthalmology, 31:1589, Dec. 1948) reports that he has treated 5 patients with glaucoma between the ages of fifteen and twenty-six years; 2 of these cases have been previously reported; 3 cases are reported in this article. In one of these cases the patient was a man twenty-six years of age, who had had four attacks of acute glaucoma in the right eye; an extensive goniotomy was done in this eye, and a prophylactic goniotomy was done in the left eye; the patient has a corrected vision of 20/20 in each eye with full visual fields. In the other 2 cases, the patients were girls aged fifteen and nineteen years In these cases normal inrespectively. tra-ocular tension has been maintained with relief of all symptoms by the use of prostigmine. In the 2 cases of juvenile glaucoma previously reported bilateral goniotomies were done with good results. There was no history of glaucoma in the family in any of these cases. study of these cases, the author concludes that the cause of juvenile glaucoma is the presence of a remnant of pectinate ligament blocking and covering over the angle of the anterior chamber—the same tissue that causes congenital glaucoma; it can be seen with the gonioscopic lens. Early diagnosis of juvenile glaucoma is important. The most frequent symptom is severe headache, recurring frequently, present especially in the morning and not relieved by aspitin; another characteristic symptom is seeing colored rings around lights, at first at intervals, then constantly; finally a sense of fullness or pain in the eye develops. Study of the visual fields often show contraction of the fields similar to that observed in adult glaucoma. The intraocular pressure is rarely constantly elevated, but shows considerable fluctuation. The diagnosis must be finally established by the use of the gonioscopic lens.

COMMENT

These results are far ahead of any previously reported, Megalocornea may be mistaken for glaucoma and is seen in various forms with vision of 20/20 and also much poorer because of astigmia and hyperopia. While the number of cases of glaucoma in young persons is not numerous, there are enough of them to require all ophthalmologists to be alert and the halos and colored rings with aching eyes, at intervals in the earlier stages, are important symptoms.

R.L.

An Aid in Detecting Trachoma-like Inclusion Bodies in the Conjunctiva

Martin Bodian (Archives of Ophthalmology, 40:147, Aug. 1948) describes a method of using a color filter for the detection of inclusion bodies in the Giemsastained conjunctival smear. With the color filter employed, the red end of the spectrum passes through the filter, but the blues and greens are almost completely absorbed. When seen through this color filter the cytoplasm of the conjunctival epithelial cell in the Giemsa-stained smear becomes pale gray, the nucleus a medium gray, but the inclusion bodies are "an intense black," and stand out clearly from the surrounding field; the background with this color filter is a uniform red. After this technique had been in use for some time, the author found that a similar technique had been employed by Caries for demonstration of the merozoites in blood smears from malarial patients. The inclusion bodies in the conjunctival smear were first described by Halberstädter and Prowazek in 1907 as associated with trachoma. Similar inclusion bodies have since been described in other less important ocular infections-inclusion conjunctivitis, psittacosis and lymphogranuloma venereum. Whether these inclusion bodies are the causative agent of trachoma and other infections or represent a tissue reaction to this agent is not definitely determined. It has been found, however, that the inclusion bodies are present in the

early phases of these infections, and, therefore, the demonstration of these bodies is of importance in early diagnosis. The method described for detecting these inclusion bodies makes it possible to make routine studies more rapidly and demonstrates the presence of even a single inclusion body that might be missed by "the most experienced microscopist."

New Ways of Influencing Intra-ocular Pressure

F. W. Stocker (New York State Journal of Medicine, 49:58, Jan. 1949) reports a study of various methods of reducing intra-ocular pressure made at Duke University Hospital (Durham, N. C.). In patients under treatment for general hypertension without glaucoma, with the strict rice diet of Kempner, a reduction in the intra-ocular tension was noted; most of the patients also showed a reduction in systolic and diastolic blood pressure, but there was no parallelism between the drop in intra-ocular pressure and general blood pressure. Cases in which general blood pressure was reduced by methods of treatment other than the rice diet showed no reduction in intra-ocular tension. It has not yet been determined whether the rice diet will be of value in the treatment of glaucoma. Other studies have been carried out on the influence of the permeability of the blood-aqueous barrier on the intraocular tension. Various substances belonging to the flavonol group are known to influence the permeability and fragility of the capillaries. The author and his associates have used rutin in combination with a miotic, the same miotic being used in each case throughout the period of observation. In 15 patients with uncomplicated primary glaucoma in 26 eyes, the intraocular tension was determined regularly for a variable period of time before and after the administration of rutin in addition to the miotic; base and peak tensions were recorded. As rutin has a vitamin, rather than a pharmacologic effect, only intraocular tension recordings four weeks after the institution of rutin therapy were considered as indicating the true effect of this therapy. A reduction of the peak

pressure of about 15 per cent was considered to indicate definite improvement; smaller reductions were considered "questionable"; insignificant or no reductions were classed as unimproved. On this basis, 17 of the 26 eyes showed improvement, 4 questionable results, and 5 no improvement. The dosage of rutin used was 20 mg. three times a day, given by mouth; the results show that 17 of 26 eyes responded considerably better to a miotic when rutin was given in this dosage for four weeks. It seems probable that rutin reduces the permeability of the bloodaqueous barrier, and thereby increases the tension-reducing action of the miotics.

COMMENT

Glaucoma has been such a difficult problem that the average ophthalmologist is rather skeptical as newer methods are introduced. This observation is done in such a tempered spirit that we can expect some benefit from this technique and anything helpful is welcome.

R.L.

The Use of Sterile Refrigerated Pooled Human Vitreous in Living Eyes

M. H. Fritz (American Journal of Ophthalmology, 32:45, Jan. 1949) describes a method for aspirating vitreous from freshly enucleated eyes, and preserving the pooled vitreous from a number of eyes under sterile conditions in the refrigerator. With this method the vitreous remains clear and shows no change in its physical properties. The vitreous withdrawn from donor eyes, even if the surfaces of such eyes are contaminated with bacteria, remains sterile if proper aseptic technique is used. The pooled human vitreous can be injected safely into the human eyes. This procedure is indicated when there is loss of tone following cataract extraction, retinal detachment, or injury; and also in cases of cloudy vitreous not responding to conservative methods of treatment, in which the aspirable portion of the cloudy vitreous is withdrawn, and the pooled vitreous injected as a substitute. Five cases illustrating the successful use of pooled vitreous are reported. The author suggests

the further use of eye banks for the collection and storage of pooled vitreous to be distributed to qualified ophthalmologists, in addition to their "original function" of processing usable corneal material.

COMMENT

A very technical procedure to be utilized only where the best services and apparatus are available. The basic defects in cases for which this is recommended are serious and 100 percent successes cannot be expected, R.L.

OFFICE OF THE SECRETARY OF DEFENSE

-Concluded from page 233

were commissioned in the Armed Forces.

Should a shortage of professional manpower be allowed to materialize it could easily jeopardize the whole National Defense Program. It would mean the Armed Forces would not have enough physicians and dentists to furnish even a minimum of medical and dental service to the nearly 2,000,000 men and women in the military Services.

It is estimated that the government expended almost \$10,000,000 to educate, feed and clothe the 8,000 men who participated in the wartime programs.

If the present campaign for volunteers is unsuccessful consideration must be given to the following alternatives:

(1) To ask for draft legislation covering physicians and dentists who have not responded to the call for volunteers.

(2) To ask those men who served in World War II, and who hold reserve commissions, to re-enter for active duty in the Armed Forces.

(3) To retain those men now on duty, but who are entitled to be relieved from the service upon completion of their respective tours of duty, until the shortage has been corrected.

ASSOCIATED PHYSICIANS OF LONG ISLAND

-Concluded from page 229

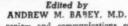
son, seconded by Dr. Wood, suggested that the rules and regulations regarding the Browning prize be referred back to the committee for interpretation and possibly liberalization of the standards. Dr. Brondum of the Public Health Committee reported progress, and said that he planned to make a full report later. Dr. Anderson reported progress on the work of creating a list of members in the organization. As chairman of the Nominating Committee, Dr. Anderson read the following list of names: President, William C. Carhart; president elect, Mervyn V. Armstrong; 1st vice president, Warren C. Titus; 2nd vice president, Stanley C. Hall; 3rd vice president, Gerald E. Pauley; treasurer, E. Harrison Griffin; secretary, Charles G. Williamson; assistant secretary, Earl M. McCov.

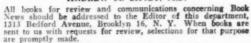
It was voted that a letter of thanks be sent to the Sister Superior, Medical Board

and the Board of Managers, for the hospitality which the Association enjoyed at St. Catherine's Hospital. It was noted that 167 had registered for the meeting at St. Catherine's, and it was believed that there were a great many more who did not register. Dr. Stanley C. Hall made a motion that a notice of the proceedings at the meeting be sent to the Brooklyn Eagle. This was duly carried out. Dr. Anderson praised the meeting, and said that it was the best that he had ever seen. The business meeting was adjourned at 6 p.m., and the Association repaired to the Granada Hotel where cocktails and a steak dinner were enjoyed by all. Following the meeting, Lieutenant Bernard M. Boylan, commanding the Narcotic Bureau of the New York City Police Department, gave a lecture demonstration of drug addicts and addiction from the police viewpoint. His talk was thoroughly enjoyed by all, and the meeting adjourned about 10:30 p.m.

CHARLES G. WILLIAMSON, M.D. Secretary

Medical BOOK NEWS







Classical Quotations

• "In the April number, 1815, of the American fournal I published an essay on the Pathology of Yellow Fever as presented to our notice in Mobile. I now purpose to give the results of my observations on the peculiar habits, or what may be called the Natural History of this disease, and my reasons for supposing its specific cause to exist in some form of Insect Life."

JOSIAH C. NOTT

Yellow Fever Contrasted with Bilious Fever. New Orleans Medical and Surgical Journal 1848, IV, 563-592.

Urinalysis

Urine and Urinelysis. By Louis Gershenfeld, D.Sc. 3rd edition, New York, Romaine Pierson [c. 1948]. 12mo. 347 pages, illustrated. Cloth, \$5.00.

The third edition of *Urine and Urinalysis* by Louis Gershenfeld has been thoroughly revised and its usefulness thereby greatly enhanced. Since great progress has been made in chemotherapy and antibiotic treatments, many new methods have been added and others modified. Necessarily, too, new diagnostic features have been added, all of which have contributed to a work which should prove of great value to the practicing physician and laboratorian. The volume can be recommended highly by the reviewer as a very useful textbook on this subject.

MAX LEDERER

Research

American Medical Research, Past and Present By Richard H. Shryock, Ph.D. New York, Conmonwealth Fund, [c. 1947]. 8vo. 350 pages. Cloth, \$2.50.

This book gives a good historical account of American medical research covering the period from the mid-eighteenth century to the present. The research of the last fifty years is particularly emphasized showing the remarkable development made in this country since World War I.

THOMAS B. WOOD

Toxicology

Clinical Toxicology. By Clinton H. Thienes, M.D., & Thomas J. Haley, Ph.D. 2nd Edition, Philadelphin, Len & Febiger, [c. 1948]. 12mo. 373 pages, illustrated. Cloth, \$4.75.

These two young "Lochinvars" have literally "come out of the West," with a message to us old timers in medicine which may help to explain some of the headaches that we run into when we try out some of the "New and Non-official Remedies," vaccines, sera, sulfas and all the other complex organic chemical radicals which have literally descended upon us in such vast numbers recently.

The immense amount of painstaking work and research which has gone into this little volume cannot be appreciated unless it is made a must in occasional reading, for there is too much to digest all at one time. The index is so arranged, however, from the anatomical, somatic, psychoneurotic, blood, and bone marrow angles that any and all phases may be studied before the introduction of any of the newer therapies with their possible "side actions" of which all too little is known.

THOMAS F. NEVINS

—Continued on page 248

MEDICAL BOOK NEWS

-Continued from page 247

Child Care

The Child in Health and Disease. A Textbook for Students and practitioners of Medicine. Edited by Clifford G. Grulce, M.D. & R. Cannon Eley, M.D. Baltimore, Williams & Wilkins Co., [c. 1948]. 4to. 1066 pages, illustrated. Cloth, \$12.00.

This is a complete, concise, accurate textbook of Pediatrics. Seventy-five to eighty nationally recognized authorities have cooperated under the leadership of Doctors Grulee and Eley to prepare a handy reference book for the busy general practitioner who directs ninety per cent of the pediatric care throughout the United States and for medical students. All unnecessary controversial material has been omitted. The book is durable in binding, well printed on eycellent paper, and aptly illustrated Many valuable charts are included to summarize disease relationships. The price puts this valuable volume well within the reach of all the members of the medical profession. All pediatric technical procedures are covered in detail.

KENNETH G. JENNINGS

Bacteriology Manual

Practical Bacteriology, Hematology, and Parasitology. By E. R. Stitt, M.D., Paul W. Clough, M.D. & Sara E. Branham, M.D., with contributors, 10th edition. Philadelphia, Blakiston Co., [c. 1949]. 8vo, 991 pages, illustrated. Cloth, \$10.00.

The tenth edition of this standard laboratory manual is everything that one would expect of it. As in previous editions, the emphasis is on the exact methods of laboratory procedures, and their interpretation and diagnostic significance.

Every section of the book has been revised by experts in that particular field. Among these, one may mention Branham and Wooley (Bacteriology); Topping (Rickettsiae); Clough (Viruses, Hematology, and Clinical and Pathological Examinations); Goodlow (Mycology); and Bingham (Parasitology). The result is a reference work that is indispensable to the

A very useful Appendix is devoted to laboratory apparatus and methods.

ARNOLD H. EGGERTH

New Edition of Todd and Sanford

Clinical Diagnosis by Laboratory Methods. A Working Manual of Clinical Pathology. By James Campbell Todd, M.D. & Arthur Hawley Sanford, M.D. with the collaboration of George Giles Stilwell, M.D. 11th Edition. Philadelphia, W. B. Saunders Co., [c. 1948]. Svo. 954 pages, illustrated. Cloth, \$7.50.

This 11th edition of a standard laboratory text, the 1st edition of which appeared forty years ago, lives up to its established reputation. There has been little change from the last edition aside from a rearrangement of some of the subject matter and the improvement in illustrations by means of the addition of a number of new cuts and plates and the omission of a number of old illustrations.

This book will always remain as a standard text used likewise by teachers, students, medical technicians and pathologists.

THEO. J. CURPHEY

Diabetic Manual

The Diabetic's Handbook. How to Work with Your Doctor. Treatment by Diet and Insulin. By Anthony M. Sindoni, Jr. M.D. New York, Ronald Press, [c. 1948]. 8vo. 194 pages, illustrated. Cloth, \$3.00.

This is an excellent book on diabetes for the layman. The first section is devoted to questions that diabetics ask and physicians answer. Here the usual questions of a diabetic are answered with excellent clinical judgment and in very simple language.

The second section deals with causes and symptoms of the disease. In this section, the author discusses the incidence of diabetes mellitus, the history of the disease, what is diabetes, and other subjects.

Section three is devoted to the complications of diabetes. Here the causes and symptoms of acidosis and coma are discussed, also arteriosclerosis and gangrene, and other complications of diabetes.

Section four deals with insulin and discusses insulin, insulin injections, insulin reactions and the various forms of insulin.

Section five contains a fine table of foods and section six deals with laboratory procedures.

The reviewer heartily recommends for the layman in particular Section 1, which is very well done.

VINCENT ANNUNZIATA

-Concluded on page 250

MEDICAL TIMES, MAY, 1949

medical laboratory.



ARTHRALGEN

Arthralgesic Unguent

A single application of Arthralgen by deep massage affords rapid and sustained relief of the pain, stiffness and disability associated with articular and non-articular rheumatic disorders. Vasodilatation due to methacholine chloride, rubefaction due to the third pain and menthol, analgesia due to methyl salicylate—these pharmacologic effects of Arthralgen are translated clinically into effective relief of muscle and joint pain within a few minutes of application. This remarkably rapid action is favored by selected wetting agents in the ointment base, which lower surface tension and assure quick and thorough penetration. The hyperemia resulting from the synergistic influence of the active ingredients prolongs the duration of effect, which can be further extended up to six hours by concomitant exposure of the affected parts to moist or dry heat.

ARTHRALGEN is highly effective in fibrositis, whether occurring in the fibrous insertions and aponeuroses of muscles (myositis, lumbago), or in the joint capsules and bursae (synovitis, bursitis), or in the supporting structures of nerves (neuritis, sciatica). It is useful, also, as adjunctive treatment in rheumatoid arthritis during the early phases of systemic therapy. Since Arthralgen does not contain histamine, it is relatively free from such untoward side effects as itching, urticareal wheals or profound drop in blood pressure.

Packaging: One-ounce tubes on prescription and half-pound jars for office and institutional use.

Arthralgen contains methacholine chloride 0.25%, thymol 1%, menthal 10%, and methyl salicylate 15% in a highly absorbable, washable emallient base.

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The use of CALEMATUM (Nason's) is not restricted to Summer. It is fast becoming the anti-pruritic of choice for the relief of itching and discomfort due to cold sores and other vesicular eruptions the year-round.

Ethically distributed in 2-oz. tubes by prescription druggists or order direct from:

TAILBY-NASON Co., Boston 42, Mass.

Send for sample



MEDICAL BOOK NEWS

-Concluded from page 248

Medical History

Victor Robinson Memorial Volume. Essays on History of Medicine. Edited by Solomon R. Kagan, M.D. New York, Froben Press, [c. 1948]. Svo. 444 pages, illustrated. Goth, \$10.00.

This collection of essays, intended to do honor to the medical historian, Victor Robinson, on his sixtieth birthday, was unfortunately delayed in publication until after his death. The reviewer hopes that Dr. Robinson knew about this distinguished volume and had the chance to approve its contents. There are many papers, all good, and those by Dittrick, Heaton, Macht, Pagel, Rosen, and Shastid are excellent.

MILTON PLOTZ

Thrombosis

Venous Thrombosis and Pulmonary Embolism. By Harold Neuhof, M.D. New York, Grune & Stratton, [c. 1948]. 4to. 159 pages, illustrated. Cloth, \$4.50. (Mt. Sinai Hospital Monograph No. 2.)

This is an excellent treatise on an increasingly important phase of medicine and surgery. Most valuable are the case histories which illustrate the various clinical responses to embolization as well as the often surprising extent of thrombotic sume of the anticoagulant therapy is also presented.

ANDREW BABEY

Orthopedics

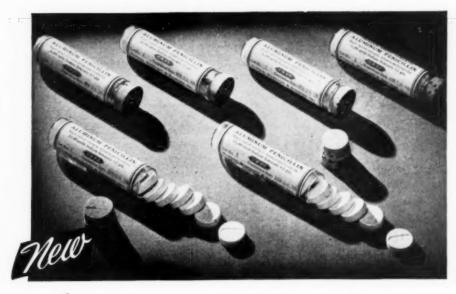
Campbell's Operative Orthopodics. Edited by J. S. Speed, M.D. Associate Editor, Hugh Smith, M.D. 2nd Edition. In 2 volumes. St. Louis, C. V. Mosby Co., [c. 1949]. 4to. 1,643 pages, illustrated. Cloth, \$30.00 set.

This second edition is a must for the library of every orthopedic surgeon. The book is a two-volume edition that has been extensively enlarged in text and photographs.

The book is a valuable reference work for all types and varieties of surgical procedures. It is well written. The authors are to be congratulated on completing such a huge undertaking.

OTHO C. HUDSON

MEDICAL TIMES, MAY, 1949



Aluminum PENICILLIN. ORAL TABLETS

Aluminum Penicillin Oral Tablets are clinically effective in the treatment of penicillin susceptible infections.

Containing the almost insoluble trivalent aluminum salt (not a mixture), they provide for maximum utilization of the dose administered.

Low solubility of Aluminum Penicillin renders it much less liable to inactivation in the stomach. Destruction in the intestinal tract is inhibited by the addition of sodium benzoate. Slow conversion to a readily absorbed form in the more alkaline conditions of the intestinal tract enhances clinical effectiveness.

Aluminum Penicillin is not toxic in doses far exceeding those used therapeutically and does not cause gastric disturbance.

Detailed information will be sent to physicians on request.

Specify Aluminum Penicillin Oral Tablets, H. W. & D.

Supplied in vials of twelve tablets each containing Aluminum
Penicillin, 50,000 units, and sodium benzoate, 0.3 gram.

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attacking arthritis

at the G-I level

With so many arthritics exhibiting evidences of constipation and hypofunction of the gallbladder, liver and kidneys—it is today generally conceded that "proper handling of the gastro-intestinal tract...may in some cases be the most important factor in successful management."* The Occy-Crystine formula is frequently used with benefit—to provide effective, non-irritant cathartic and cholagogic action; it is also sulfur-bearing.

Composition: Occy-Crystine is a hypertonic solution of pH 8.4, made up of the following active ingredients—sodium thiosulfate and magnesium sulfate, to which the sulfates of potassium and calcium are added in small amounts, contributing to the maintenance of solubility.

*Nuzum, F. R.: In Diseases of the Digestive System, ed. by S. A. Portis, Lea & Febiger, 1944.

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the sulfur-bearing saline eliminant

Modern

THERAPEUTICS

Bacteriological Properties of Circulin

Circulin is an antibiotic which is polypeptide in nature and which was obtained from broth cultures of a mucoid variant of Bacillus circulans. It has been found to be bactericidal as well as bacteriostatic and against fungi. A unit of activity of the antibiotic has been defined as the amount of substance that will completely inhibit the growth of Escherichia coli in 1 cc. of nutrient broth for 24 hours. McLeod, writing in J. Bact. (56:749 (Dec. 1948)) further states that the presence of as much as 25 per cent blood serum in the assay system had no appreciable effect upon the activity of circulin. The antibiotic is hemolytic and extremely toxic.

Circulin is filterable through a Zeitz filter with no loss of activity. Crystalline preparations in dilute hydrochloric acid solution may be stored for a period of 2 years, at least, at 4° C. with no loss of activity.

Although this antibiotic is unsuitable for parenteral therapy it may have value in the treatment of bacterial and fungal infections of the skin.

Necrosin Causes Destruction of Tumor Tissue

Necrosin is a toxic substance liberated by injured cells. It was found to localize in the primary tumor and also in the far distant metastases in the lungs of tumorbearing Swiss mice following subcutaneous injection. One to 8 injections were given of from 0.2 to 1748 micrograms of necrosin per injection. In the treated mice 91.8 per cent showed frank hemorrhagic necrosis in the tumor or in the lung metastases. The firm tumor substance became replaced by a free oozing, dark, bloody-like material. Menkin reported in *Proc.*

-Continued on page 54a

MEDICAL TIMES, MAY, 1949



The newly diagnosed diabetic and Globin Insulin

WHEN DIETARY MEASURES ALONE cannot control a recently established case of diabetes and insulin must be resorted to, one daily injection of intermediate-acting 'Wellcome' Globin Insulin with Zine will often prove both adequate and beneficial. This simplified regimen can be initiated in the following manner:

ESTIMATING THE DOSAGE: The simplest method is to start with 15 units of Globin Insulin and increase the dosage every few days, as required. A closer estimation is obtained by quantitative sugar determination of a 24-hour urine specimen. For the initial dosage, ¾ of a unit of Globin Insulin is given for every gram of sugar spilled in 24 hours.

Both diet and dosage must subsequently be adjusted to meet the needs of each individual patient.

ADJUSTING THE DIET: In general it has been found that a good carbohydrate distribution for the patient on Globin Insulin consists of 1/5 of the total carbohydrate at breakfast, 2/5 at the

noon meal, and 2/5 at the evening meal. Any tendency toward midafternoon hypoglycemia may usually be offset by giving 10 to 20 grams of carbohydrate between 3 and 4 p.m.

This starting diet may subsequently be adjusted as required to suit the needs of the patient. Final adjustment of carbohydrate distribution may be based on fractional urinalyses.

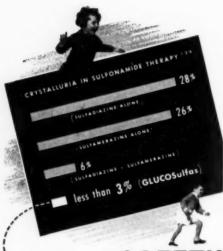
ADJUSTING TO 24-HOUR CONTROL: Simultaneously adjust the Globin Insulin dosage to provide 24-hour control as evidenced by a fasting blood sugar level of less than 150 mgm., or sugar-free urine in the fasting sample.

Wellcome' Globin Insulin with Zinc is a clear solution, comparable to regular insulin in its freedom from allergenic properties. Available in 40 and 80 units per cc., vials of 10 cc. Accepted by the Council on Pharmacy and Chemistry, American Medical Association. Developed in The Wellcome Research Laboratories, Tuckahoe, New York, U.S. Patent No. 2,161,198. LITERATURE ON DEQUEST.

'Wellcome' Trademark Registered







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Sulfonamide mixtures definitely reduce renal complications, particularly crystalluria. GLUCOSulfas practically eliminates these complications by providing a balanced, liquid triple mixture with added sodium lactatealucose as an alkaline buffer. Total dose of sulfonamide can be safely increased to obtain higher blood levels. Pleasant-tasting GLUCOSulfas is notable for positive uniformity, teaspoon for teaspoon.

BALANCED. BUFFERED LIQUID TRIPLE MIXTURE

Each 5 cc. (one teaspoonful) contains 0.5 Gm. of total sulfonamides, of which 37% is Sulfadiazine, 37% is Sulfathiazole and 26% is Sulfamerazine, 1.0 Gm. of sodium lactate and glucose. Supplied in pint bottles.

- Flippin, H. F., and Reinhold, J. G.: Ann. Int. Med. 25:433, 1946.
- Ledbetter, J. H., and Cronheim, G. E.: Am. J. Med. Sci. 216:27, 1948.
- 3. Frisk, A. R., et al: Brit, Med. J. 1:7, 1947.

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MODERN THERAPEUTICS

-Continued from page 52a

Soc. Exper. Biol. and Med. 169:460 (1948)) that the necrosin administered to the mice does not appear to influence the longevity of the treated animals compared with the untreated mice. However, there is severe injury to the liver, and the kidneys sometimes reveal injury. The necrosin used in the study was obtained from the euglobulin fraction of injured cell exudates of dogs.

Aureomycin in Ocular Infections

A preliminary report by Braley and Sanders in J.A.M.A. (138:426 (Oct. 9, 1948)) indicates that aureomycin is effective against staphylococci, pneumococci, influenza infections, and also in inclusion conjunctivitis, and Mooren's ulcer. It may be effective against epidemic keratoconjunctivitis, vernal conjunctivitis, and dendritic keratitis. The antibiotic was used in 100 cases of ocular disease and administered as a 0.5 to 1 per cent solution of aureomycin borate in isotonic sodium chloride solution, having a pH of 7.5 to 7.8. In solution at room temperature the activity of the antibiotic disappears in about 24 hours but it is stable as the dry powder. The antibiotic solution was nonirritating to the inflamed conjunctiva but slightly irritating to the noninflamed conjunctiva.

Physiological Availability of Ascorbic Acid

The postulate that fruits and vegetables contain a covitamin necessary for the effective utilization of ascorbic acid by the body was invalidated by the findings of Melnick, Hochberg, and Oscar. These authors found that the urinary excretion values in human subjects supplied ascorbic acid by means of a normal diet containing fruits and vegetables and in other subjects by means of enriched apple juice, were no different than in those subjects given their complete ration of ascorbic acid in a pure aqueous solution. In the latter case no fruits and

-Continued on page 56a

a new achievement!



vi-syneral injectable

Aqueous parenteral solutions of liposoluble vitamins A, D and E are more rapidly and completely absorbed . . . and are relatively free from local reactions . . . characteristic of injectable oily solutions.

Vi-Syneral Injectable . . . the <u>first</u> and <u>only</u> aqueous* parenteral preparation of oiland water-soluble vitamins . . . ready to inject intramuscularly . . . no mixing . . . no diluent needed.

Each Vi-Syneral Injectable 2 cc. ampul provides in aqueous solution:

Vitamin A (natural) .	10,000 Units
Vitamin D (calciferol)	1,000 Units
Alpha-Tocopherol (E).	2 mg.
Ascorbic Acid (C)	50 mg.
Thiamine HCl (B ₁)	10 mg.
Riboflavin (B_2)	1 mg.
Pyridoxine HCl (B ₆)	3 mg.
Niacinamide	20 mg.

Protected by U. S. Patent No. 2,417,299

Boxes of 6, 25, 100 and 500 ampuls.

Professional samples and literature upon request.

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MODERN THERAPEUTICS

-Continued from page 54a

vegetables were included in the diet, which was otherwise normal. Writing in J. Nutrition (34 (Oct. 1947)) the authors also report that apple juice is a favorable vehicle for the administration of ascorbic acid in the human diet. The vitamin is more stable in this medium than in a pure aqueous solution buffered to the same pH.

Pentothal Sodium Intravenous Anesthesia

The intravenous administration of Pentothal Sodium in 96 major interventions on the genito-urinary organs and 59 operations of short duration provided effective anesthesia without a single death or coronary attack. According to Mathe and Ramirez in J. Urol. (58:163 (Sept. 1947)) this anesthetic should not be used in operations lasting several hours, in patients with anemia, azotemia, or obstructive disease of the upper respiratory tract, in patients who received sulfonamide therapy within the previous 24 hours, or in children under 4 years of age. The technique recommended comprises the administration of 0.1 Gm. of Nembutal the evening prior to operation and 0.2 Gm. with atropine and scopolamine hydrobromide 1/2 hour before operation. To produce anesthesia a 2.5 per cent solution of Pentothal Sodium is slowly injected intravenously in the minimum amount necessary to sustain anesthesia and give satisfactory relaxation. Simultaneously 1,000 cc. of normal saline is also injected.

Penicillin Therapy for Syphillis in Pregnancy

An optimum dosage for penicillin in the treatment of syphilis in pregnant women was found to be 40,000 units every 3 hours for a total of 4,000,000 units. This dosage was concluded from a study of the effects of penicillin treatment on both mothers and babies in a group of 250 pregnant syphilitic women. A quantitative

-Continued on page 58a



More and more physicians and their grateful patients are learning that RIASOL is definitely a leader in the field of psoriasis. It has earned its reputation on the basis of the superior results it has produced in an oftentimes baffling disease.

RIASOL clears disfiguring, psoriatic lesions promptly in so many cases.

RIASOL often reduces the incidence of recurrences to a marked degree.

RIASOL enjoys patient acceptance, patient cooperation and patient satisfaction.

RIASOL is simple, convenient and pleasant to use.

RIASOL contains 0.45% mercury chemically combined with soaps, 0.5% phenol and 0.75% cresol in a washable, non-staining, odorless vehicle.

Apply daily after a mild soap bath and thorough drying. A thin, invisible, economical film suffices. No bandages necessary. After a week, adjust to patient's progress.

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Many physicians have found that, for patients requiring supplementary protein, Knox unflavored Gelatine in water, fruit juice or milk provides a useful, easily digestible source.

Knox Gelatine contains nine of the ten "essential" amino acids. It has been shown to supplement many varieties of food material. It is an ideal protein supplement concentrate with very low sodium content.

Do not confuse Knox Gelatine with ready-flavored gelatine dessert powders which contain about % sugar and only about 1/8 gelatine. Knox is all protein, no sugar.

Literature, including suggestions for preparing the Knox Gelatine protein drink, is available on request. Address

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MODERN THERAPEUTICS

-Continued from page 56a

Kahn test and a Wassermann titer were used as the serological tests. Arsenoxide was administered along with the penicillin to 82 patients. Among 84 patients who were under treatment before pregnancy there was but 1 congenital syphilis. Of 149 patients whose treatment began during pregnancy there were 3 congenital cases, and 4 abortions and 2 neonatal deaths possibly due to syphilis. Among 26 patients re-treated following relapses there were 2 abortions and 1 stillbirth possibly due to syphilis. According to Speiser et al in J. Ven. Dis. Inform. (28:108 (June 1947)) 66 per cent of the women showed satisfactory quantitative Kahn tests at the time of delivery.

Potentiation of Pressor Action of Epinephrine by Tetraethy! Ammonium

Tetraethyl ammonium is capable of potentiating the responses to pressor drugs and also to depressor drugs. However, Moe, writing in J.A.M.A. (37:1116 (July 24, 1948)) stated that epinephrine should never be given intravenously with or without tetraethyl ammonium unless the patient is watched carefully for blood pressure changes. The dosage must always be carefully adjusted to the needs of the individual. This is true whenever epinephrine is given and, according to Moe, should not imply any special contraindication to the use of tetraethyl ammonium.

Diffusion Rates from Various Ointment Vehicles

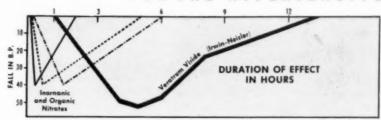
A study of the amount and rate of diffusion of sodium sulfadiazine from various ointment bases into a buffered solution resembling extracellular fluid revealed that 50 to 1,000 times as much drug was released from water-miscible and oil-in-water emulsions as from the other type bases. Zheutlin and Fox reported in J. Invest. Dermatol. (11:161 (Sept. 1948)) that the

-Continued on page 60a



Prolonged Relief

FOR THE HYPERTENSIVE



Veral

Veratrite affects a marked relief of headache, palpitation and dizziness in hypertensive subjects, together with a feeling of well-being in the majority of cases of less-than-severe degree.

Literature and samples on request.

Each tabule contains: veratrum viride (bio-assayed) 3 Craw Units; sodium nitrite 1 grain; phenobarbital 1/4 grain.

IRWIN, NEISLER & COMPANY



DECATUR, ILLINOIS



MODERN THERAPEUTICS

—Continued from page 58a

vehicles, in order of decreasing diffusability were: Carbowax 1500 (polyethylene glycol), Hydrophilic Ointment U.S.P., Burroughs-Wellcome greaseless ointment base, Carbowax 4000 (polyethylene glycol), vanishing cream (stearic acid, sodium carbonate, glycerin, water and alcohol), Aquaphor (hydrophilic ointment containing complex high molecular animal fats), cold cream, Hydrosorb (mixture of fatty acid esters of diethanolamine with petrolatum), and White Petrolatum U.S.P. The amount of drug absorbed within 24 hours varied from 0.4 mg. of 1,630 mg. available in white petrolatum to 650 mg. of 2,260 mg. available in Carbowax 1500. A comparison of the percentages of the drug diffused after a period of 24 hours when the bases were

spread out about 0.1 cm. thick and about 30 cm. long for the following bases was: white petrolatum 4.2, vanishing cream 15.0, hydrophilic ointment 41.0, and Carbowax 4000 98.0. There was no study made of the stability of the drug in the bases used.

Vitamin B₁₂ Improves Spinal Cord Degeneration Symptoms

Spies and associates described the results from therapy with vitamin B₁₂ of three patients with degeneration of the spinal cord accompanying pernicious anemia. All three patients had macrocytic hyperchromic anemia, leukopenia, thrombocytopenia, megaloblastic arrest of the erythrocyte series in the bone marrow, absence of free hydrochloric acid in the gastric secretion following histamine injection, and acute neurological symptoms. One of the cases described by the authors in *South. Med. J.* (41:1030

-Continued on page 62a



chronic fatigue and hypotension



the chronically fatigued patient . . .
the hypotensive individual—the weary convalescent often respond

Cortisorbate Tablets contain the cortico-adrenal hormone in an orally effective form.

Two Potencies: 1/2 Oral Rat Unit and 1 Oral Rat Unit, both in bottles of 20's and 100's.



often respond to adrenal cortex therapy

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- 4 antipruritic
- 2 bactericidal
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1 and 4 oz. tubes at pharmacies

Samples on request

SARNAY PRODUCTS, Inc. - New York 17, N. Y.

MODERN THERAPEUTICS

-Continued from page 60a

(1948)) had such stiffness and tenderness in the knees and ankles that he was unable to walk without support. He was given 25 micrograms of vitamin B₁₂ parenterally every 48 hours until 4 injections had been given. Within 48 hours the patient volunteered that he felt better and on the fifth day he walked briskly for about 30 yards without support and without pain or tenderness in his legs. Also, the patient's blood picture had improved and his appetite had increased.

Disadvantage of Sulfonamide Combinations

Carrol cites a case in which an elevation of temperature to 105.2°F., vomiting, and retching followed the administration of 3 doses of 1 Gm. each of a combination of sulfathiazole and sulfadiazine for the treatment of a genitourinary infection. Reporting in Ann. Internal Med. (29:533 (Sept. 1948)) the author indicates that penicillin and streptomycin did not cure the infection. However, the administration of sulfadiazine with equal doses of sodium bicarbonate to prevent intrarenal drug precipitation, cleared the infection. The author feels that a single sulfonamide combined with equal doses of sodium bicarbonate is preferred to the use of sulfonamide combinations.

Antihistamine Drugs in the Treatment of Vomiting Due to Streptomycin

Occasionally during prolonged treatment with streptomycin a patient will develop severe nausea and vomiting. Bignall and Crofton discuss, in *Brit. Med. J.* (No. 4591:13 (Jan. 1, 1949)), the results obtained in four cases of which Benadryl and/or Antistin were used in an attempt to control this severe nausea and vomiting. Benadryl was given every 4 to 8 hours in doses of 50 mg., generally. Within a few hours after the antihistamine was given the

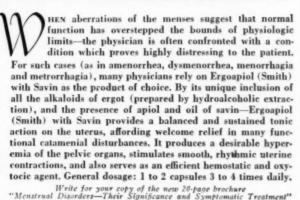
symptoms were abolished or greatly reduced in severity. When Benadryl was withheld the symptoms reappeared. Antistin likewise caused a remission of symptoms. In order to eliminate the possibility of suggestion playing a part in the remission of symptoms, capsules, identical with those used for the Benadryl, were filled with lactose and substituted for the Benadryl unbeknown to the patient. Nausea and vomiting recurred in every case, and again disappeared when the Benadryl was reinstituted.

Treatment of Undulant Fever with Sulfadiazine and Streptomycin

Brucella abortus, the causative agent of undulant fever, is known to be sensitive to both sulfadiazine and to streptomycin. However, clinical results with either drug alone in the treatment of undulant fever has been disappointing. A few clinicians have reported varying results with com-

bined therapy. In Brit. Med. J. (No. 4590:1099 (Dec. 25, 1948)) Scowen and Garrod report the results from combined treatment in two cases of proven brucellosis, one in the early stages and one in later stages. The regime used in treatment was 2 Gm. of sulfadiazine every 4 hours for 3 doses each day by mouth and 1 Gm. of streptomycin intramuscularly every 8 hours for 3 doses each day. This therapy was continued for 14 days. In one case the temperature returned to normal within 3 days and the other within 14 days. Both patients apparently were cured for they had been afebrile for 6 and 2 months at the time the report was given. The authors suggest that previous failures following treatment of undulant fever with sulfadiazine and streptomycin in combination may have been due to insufficiently large doses of the drugs. They also point out that the optimum dosage has probably not yet been worked out.

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NEWS AND NOTES

Rumanian National Health Service

Without previous notice guards were placed last April at all drug stores, medical warehouses and pharmaceutical and medical laboratories in Rumania. Simultaneously with these seizures a decree for nationalization of these properties was published. It was all part of the Rumanian Nationalization of the entire drug field. All these properties with their contents and installations became State owned with the exception of those available to the Soviet Union.

A. M. A. Has No Official Spokesman

The American Medical Association has not now and never has had an official spokesman, points out an editorial appearing in a recent issue of The Journal of the American Medical Association.

The editorial follows in part:

No committee, council, board, officer, or employee of the association is charged with establishing policies for the American Medical Association. The association has not now and never has had an official spokesman.

In February, the Board of Trustees announced the 12 point program, which is an expansion of other programs which the House of Delegates accepted and announced over a number of years. In making this announcement the chairman of the Board of Trustees is not establishing any new policies. The announcement was made for information of the medical profession and the public concerning the activities of of the Board of Trustees.

The statements here made are intended to correct unwarranted misrepresentations as to the association. The House of Delegates at the St. Louis session reaffirmed the



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point of view of the American Medical Association in its determined opposition to compulsory sickness insurance. The House of Delegates also recommended the widest possible extension of voluntary hospitalization and sickness insurance but did not consent to the formation of a national insurance company under the sponsorship of the American Medical Association. These are the two most prominent issues now discussed in editorial opinion throughout the United States.

Until the House of Delegates acts to change a decision, every council, bureau, officer, and employee is bound by the prevailing actions of the House of Delegates.

Valley Forge Hospital to Graduate Professional Education Program

Beginning July 1, 1949, Valley Forge Army General Hospital, Phoenixville, Pennsylvania, will participate in the Graduate Professional Education Program, it was announced by Major General R. W. Bliss, The Surgeon General. This will bring the number of general hospitals participating in this program to nine, and will open a new source of training to young physicians interested in the Army Military Intern Program. The Army has extended an invitation to medical students to visit its training hospitals during the summer months. Valley Forge, located within 25 miles of Philadelphia, will make it possible for students in this area to inspect Army medical teaching facilities.

National Health Meeting by A. M. A. Termed "Impractical"

Any proposal for the American Medical Association to call a National Health Conference "would be impractical," says Dr. Elmer L. Henderson, Louisville, Ky., chairman of the Board of Trustees, until the Federal Security Administration makes a full report on the 16 sections which comprised Federal Security Administrator Oscar Ewing's National Health Assembly, held in Washington in May, 1948.

In a statement published recently in The Journal of the American Medical Associa-

-Continued on page 66a



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NEWS AND NOTES

-Continued from page 65a

tion, Dr. Henderson said that "the reports of these sections have not yet become available except for the inclusion of the condensed report of the section on medical care."

Dr. Hinton Made Surgical Chief At New York University-Bellevue Medical Center

Dr. J. William Hinton has been appointed Professor of Surgery at the Post-Graduate Medical School, New York University-Bellevue Medical Center. In the new post, Dr. Hinton will be Director, Fourth Surgical Division, Bellevue Hospital, and continue as Director of Surgery at University Hospital, 303 East 20th Street, formerly Post-Graduate Hospital.

Dr. John H. Mulholland remains as Professor of Surgery, New York University College of Medicine and Director of the Third Surgical Division, Bellevue Hospital.

Under Dr. Hinton's direction, care of patients, teaching of doctors on a post-graduate level and various research projects will be carried out on the Fourth Surgical Division of Bellevue.

New Asst. Chiefs of Medical Corps

In the presence of Brigadier General George E. Armstrong, Deputy Surgeon General of the Army, and eminent members of scientific societies, Lieutenant Colonel Charles S. Gersoni, Major Raymond J. Karpen, Major John V. Painter, were sworn in recently as the first appointed Assistant Chiefs of the Medical Service Corps.

Mayo Clinic Physicians Support A. M. A. Campaign

Physicians of the Mayo Clinic, Rochester, Minn., are supporting the A. M. A. campaign against national compulsory sick-

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ness insurance virtually 100 per cent, ac-, cording to a letter from representatives of the clinic and of the Mayo Foundation.

Two hundred and ten members of the staff of the clinic and 340 fellows of the foundation, which is 97.7 per cent of the staff and 99.7 per cent of the fellowship personnel who are members of the local county medical society, the Olmsted-Houston-Fillmore-Dodge County Medical Society, contributed to the A. M. A. fund, according to the letter.

These figures are exclusive of 20 staff members and 26 fellows who have not yet had the opportunity to contribute because of illness or absence from Rochester.

A. M. A. Supports Forrestal in Doctor Enlistments

The American Medical Association re-

ported today that it is being besieged with letters from physicians now on active duty with the armed forces, and from their families, in connection with their possible retention on active duty due to the urgent need for medical officers.

Dr. James C. Sargent, Milwaukee, chairman of the A.M.A. Council on National Emergency Medical Service, said that the "A.M.A. supports Defense Secretary James Forrestal wholeheartedly in his efforts to stimulate voluntary enlistments by the 8,000 civilian physicians who received all or part of their professional training at government expense and who saw little or no military service. There are also 7,000 physicians who paid for their own education but who were deferred from their wartime draft to continue their medical education.'



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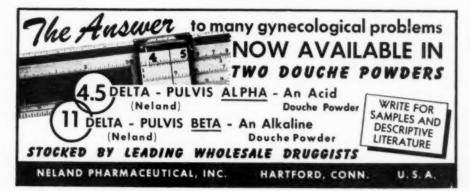
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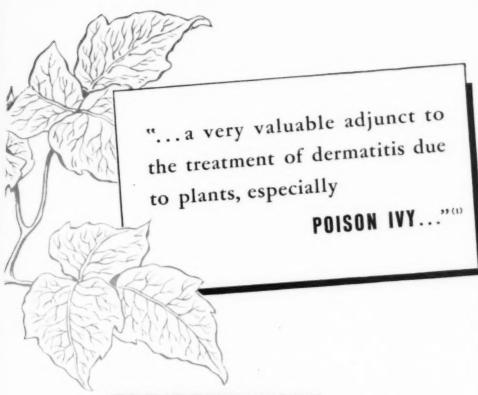
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